

JANUARY 1954 2/6

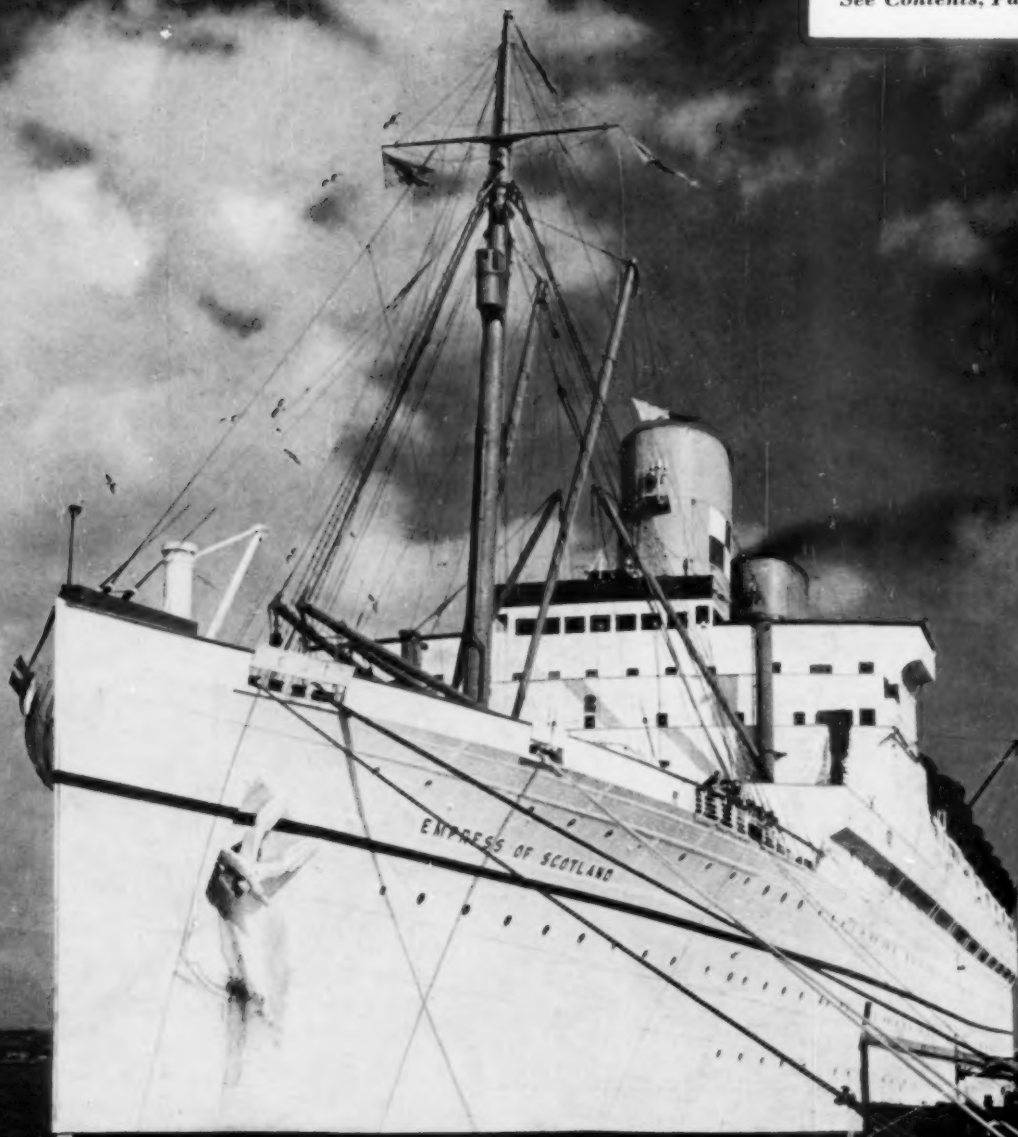
Business

THE JOURNAL OF MANAGEMENT IN INDUSTRY

**TRADE
PROSPECTS
FOR 1954**

Special Survey

•
See Contents, Page 1

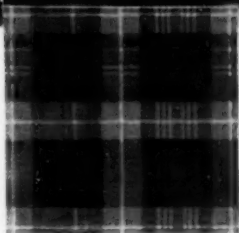


Famous Scottish Names...

Gordon



The Gordons were granted lands in Aberdeenshire by King Robert the Bruce, and the spirit of the Clan is perhaps personified by the "Gay Duchess of Gordon," wife of the fourth Duke. When the Duke was raising his regiment, now famous as the Gordon Highlanders, the Duchess is said to have recruited a battalion in a single day by standing at the Cross of Aberdeen with a guinea bounty between her lips as a prize for any lad bold enough to come and take it.



For Castings in Aluminium Alloys

Renfrew
Foundries Ltd.



Mottoes:

Above escutcheon

"Bydand" (Abiding or lasting).

Below escutcheon

"Animo non Astutia" (By courage not craft).

RENFREW FOUNDRIES LTD., HILLINGTON, GLASGOW, S.W.2. Tel. HALFWAY 3391

In less than One minute

Findex

PUNCHED CARD SYSTEM

*Produces Facts
as easily as this!*

ONE-
RODDING FOR CLASSIFICATIONS

TWO-
SORTER REVERSED—
SELECTED CARDS
DROP.

THREE-
SELECTED CARDS
OFFSET.

FOUR!
SELECTED CARD
READY FOR
HANDLING.

Findex
1,000 Indexes in One!

C. W. CAVE & CO. LTD.
59, HOLBORN VIADUCT, E.C.1. PHONE CENTRAL 3778-9.

JANUARY, 1954

Business

THE JOURNAL OF MANAGEMENT IN INDUSTRY

Contents for January

PROSPECT

BUSINESS NEWS AND DEVELOPMENTS

economic supplement facing page 32

The Year's Highlights and Trends	...	i
Salient Figures of the Month	...	iii
Home and Export Outlook for 1954:		
a Special Survey	v	
State of the Nation : Key Figures in 23 Charts	vi-vii	
The March of Business	...	37
People, Products and Places	...	39
Management in Conference	...	60
Men of Vision	...	65

POLICY AND MANAGEMENT

Making the Most of Older Workers	Peter Spooner	45
<i>Varied case-histories in the effective use of the special qualities of this growing age group</i>		
This New Act May Affect You		
A Legal Correspondent		49
<i>The Merchandise Marks Act, 1953, with all its wide implications, is fully explained for management</i>		
Ingenuity in Factory Methods	Picture Story	51
How Incentives Can Cut Costs	Wilfred Altman	54
<i>Existing incentive schemes—large and small—examined as aids to higher output/cost ratios</i>		
Selling Plan Brought Prosperity	Leonard Rule	57
<i>The career story of G. R. Hall Caine, chairman for a quarter-of-a-century of Ciro Pearls Ltd.</i>		
Profit-sharing Keeps Good Workers	Michael Mellor	62
<i>A Birmingham firm's successful scheme, designed specifically to encourage continuity of labour</i>		

INDUSTRIAL MANAGEMENT AND EQUIPMENT

It Pays to Plan "Packability"	J. E. Evan Cook, J.P.	67
<i>An expert tells how to cut costs by taking packaging into account at the product's design stage</i>		
Production Control by Operational Research		
Stafford Beer		70
Industrial Equipment	...	105

ADMINISTRATION AND OFFICE PRACTICE

Efficient Design for Modern Offices	Frank Casey	75
<i>Details of a new office building in which novel design secures high efficiency at reasonable cost</i>		
Points Grading for Clerical Jobs	Alan Peters	80
<i>Kodak Ltd.'s scheme for office job evaluation</i>		
Short Cuts to Office Efficiency	...	82
For Your Office : Equipment Survey	...	97

HEALTH - WELFARE - SAFETY - CANTEN

"Half-way House" Helps Recruiting	Edward Rennie	89
<i>A London firm's unusual service for new workers</i>		
Choosing the Canteen Manager	Winifred McCullough	93
Welfare Equipment	...	112
Canteen Equipment	...	113
Classified Guide to Advertised Equipment	...	2
Alphabetical List of Advertisers	...	116

Change of subscriber's address : Please inform the Publishers six weeks in advance of the issue for which change of address is to take effect, and include present address in full as well as new address

BUSINESS, Vol. 24, No. 1 (Incorporating "The Magazine of Commerce," "Modern Business," "System," "Business Organisation and Management," "Business News Digest" and "British Industrial Equipment"). Published monthly by Business Publications, Ltd., 180 Fleet Street, London, E.C.4. CHANCERY 8844. 30/- a year post free U.K.; 35/- Overseas.

ACCOUNT BOOKS
 Copeland Chatterton Co. ... 25
 Jones, Percy, (Twinlock) ... 100
 Lamson Paragon Supply Co., Ltd. ... 4

ACCOUNTING MACHINES
 Burroughs Adding Mch. ... 5, 36
 National Cash Register ... 42
 Regna Cash Register Co., Ltd. ... 114
 Remington-Rand, Ltd. ... 4

Cover iii
 Underwood Business Mchs. ... 44

ACCOUNTING SYSTEMS

Anson, Geo., & Co., Ltd. ... 73
 Art Metal Construction ... 33
 Carter-Davis, Ltd. ... 74
 Copeland-Chatterton Co. ... 25
 Kalamazoo, Ltd. ... 4
 Lamson Paragon Supply Co., Ltd. ... 4
 Roneo, Ltd. ... 17
 Sankey-Sheldon, Ltd. ... 107
 Shannon, Ltd. ... 101

ADDING MACHINES
 Block & Anderson, Ltd. ... 29
 British Olivetti, Ltd. ... 23
 Bulmer's (Calculators), Ltd. ... 21
 Burroughs Adding Mch. ... 5, 36
 National Cash Register ... 42
 Office Machinery, Ltd. ... 102
 Sumlock, Ltd. ... 18
 Underwood Business Machines, Ltd. ... 44

ADDRESSING MACHINES
 Addressall Machine Co. ... 20
 Roneo, Ltd. ... 17

ADDRESSING MACHINE ATTACHMENT
 Lamson Paragon Supply Co., Ltd. ... 4
 Smith, W. H., & Son, Ltd. ... 20

BANKS

Midland Bank, Ltd. ... 24

BLINDS

Avery, J., & Co. ... 26

BOOKS AND PUBLICATIONS

Pitman, Sir Isaac, & Sons, Ltd. ... 116
 Smith, W. H., & Son, Ltd. ... 99

BROADCAST MUSIC

Dictograph Telephones ... 27
 Telephone Rentals, Ltd. ... 88

BUSINESS ACCESSORIES

Coombs, H. A., Ltd. ... 114

CALCULATING MACHINES

Block & Anderson, Ltd. ... 29
 British Olivetti, Ltd. ... 23
 Bulmer's (Calculators) ... 21
 Burroughs Adding Mch. ... 5, 36
 Sumlock, Ltd. ... 18

CANTEEN EQUIPMENT

Bartlett, G. F. E. Ltd. ... 92

CASH REGISTERS

National Cash Register ... 42
 Regna Cash Register ... 114

CASTINGS

Renfrew Foundries, Ltd. ... 4

Cover ii

CINE EQUIPMENT

Distributors of G.B.—Bell & Howell Cine Equipment ... Prospect iv

CLOAKROOM EQUIPMENT

Abix (Metal Industries), Ltd. ... 30
 Bawn, W. B., & Co., Ltd. ... 28
 Harvey, G. A., & Co. ... 109

YOUR GUIDE TO BUSINESS & INDUSTRIAL EQUIPMENT & SERVICES



Sieber, James Equipment Co., Ltd. ... 95
 Westwood, Joseph, & Co., Ltd. ... 30

CLOCKS, WATCHMEN'S
 Blick Time Recorders ... 9, 32
 Gent's & Co., Ltd. ... 12
 Synchronome Co., Ltd. ... 107

COURSES

School of Accountancy, Ltd. ... 28

CONDENSERS

Telegraph Condenser Co., Ltd. ... 16

CONTINUOUS STATIONERY

Carter-Davis, Ltd. ... 74
 Columbia Ribbon Mfg. Co., Ltd. ... 8
 Copeland-Chatterton Co. ... 25
 Egly, Ltd. ... 20
 Fanfold, Ltd. ... 14
 Hunt & Colleys, Ltd. ... 14
 Lamson Paragon Supply Co., Ltd. ... 4
 Petty & Sons, Ltd. ... 20
 Smith, W. H., & Son, Ltd. ... 20

COUNTING AND NUMBERING MACHINES

Counting Instruments, Ltd. ... 98

English Numbering Machines, Ltd. ... 31

Universal Postal Frankers

CYCLE PARKS

Abix, Ltd. ... 30
 Odoni, Alfred A., & Co. ... 95
 The Welconstruct Co. ... 26

DICTATING AND RECORDING EQUIPMENT

E.M.I. Sales & Services, Ltd. ... 38
 Haycraft, M. & L., Ltd. ... 4
 Office Machinery, Ltd. ... 102
 The Trevor-Johnstone Co. ... 71

DRAWING OFFICE EQUIPMENT

Haycraft, M. & L., Ltd. ... 4

Cover iv

DUPICATING MACHINES

Block & Anderson, Ltd. ... 29
 Bulmer's (Calculators) ... 21
 Ellams Duplicator Co. ... 84
 Gestetner, Ltd. ... 11
 Moore, H. A., & Co., Ltd. ... 102
 Office Machinery, Ltd. ... 102
 Roneo, Ltd. ... 17

ELECTRIC CLOCKS

Dictograph Telephones ... 27
 Gent & Co., Ltd. ... 12
 I.B.M. United Kingdom ... 85
 Magneta Time Co. ... 28
 Synchronome Co., Ltd. ... 107
 Telephone Rentals, Ltd. ... 88

FACTORY EQUIPMENT AND ACCESSORIES

Sankey-Sheldon, Ltd. ... 107

Sieber, James, Equipment Co., Ltd. ... 95

FILING SYSTEMS

Art Metal Construction ... 33
 Copeland-Chatterton Co. ... 25
 Jones, Percy, Ltd. ... 100
 Remington-Rand, Ltd. ... 4
 Roneo, Ltd. ... 17
 Sankey-Sheldon, Ltd. ... 107
 Shannon, Ltd. ... 101

FIRE PREVENTION

Read & Campbell, Ltd. ... 112

FOLDING MACHINES

Moore, H. A., & Co., Ltd. ... 85

GUMMING AND GLUING MACHINES

Haycraft, M. & L., Ltd. ... 4

Cover iv

HEALTH SERVICES

Cellucotton Products ... 91
 Freeder Brothers ... 88
 Harcraft, Ltd. ... 35
 Horton Mfg. Co., Ltd. ... 88
 Lambert & Smyth, Ltd. ... 88
 Peter's Automatic Mchs. ... 91

HEATING

Spiral Tube, Ltd. ... 95

INDUSTRIAL CLEANING

B.V.C. Eng. Co. ... 22
 Furmotto Chemical Co. ... 112
 Johnson, S. C., & Son, Ltd. ... 13
 Lamson Engineering Co. ... 106

LIGHT CARS

Henlys, Ltd. ... 99

LIGHTING

G.E.C., Ltd. ... 110, 113

LOOSE LEAF LEDGERS AND SYSTEMS

Art Metal Construction ... 33
 Copeland-Chatterton Co. ... 25
 Jones, Percy, (Twinlock) ... 100
 Kalamazoo, Ltd. ... 4
 Lamson Paragon Supply Co., Ltd. ... 4
 Moore's Modern Methods ... 99
 Shannon, Ltd. ... 101

MARKING EQUIPMENT

Cushman & Denison, Ltd. ... 34

MECHANICAL HANDLING

Lamson Eng. Co. ... 106
 Moss, Wm., & Sons, Ltd. ... 104
 Wingrove & Rogers, Ltd. ... 15

NOISE PREVENTION

Burgess Products, Ltd. ... 112

OFFICE FURNITURE (STEEL)

Art Metal Construction ... 33

Cave, C. W., & Co., Ltd. ... 1
 Dare-Ingis Products, Ltd. ... 6
 Evertaut, Ltd. ... 24
 Leabank Office Equipment, Ltd. ... 18
 Metchair, Ltd. ... 86
 Office Machinery, Ltd. ... 102
 Poulitney, S. & B., Ltd. ... 103

Jenkins, Fidgeon, Ltd. ... 22
 Leabank Office Equipment, Ltd. ... 18
 Milners Safe Co., Ltd. ... 102
 Office Machinery, Ltd. ... 102
 Randalrak, Ltd. ... 114
 Roneo, Ltd. ... 17
 Sankey-Sheldon, Ltd. ... 107

OFFICE FURNITURE (WOOD)

Abbott Bros. (Southall) ... 77
 Carson Bros. Productions ... 87
 Cave, C. W., & Co., Ltd. ... 1
 Office Machinery, Ltd. ... 102
 Shannon, Ltd. ... 101

OVERALLS

Wheeler, H., & Co., Ltd. ... 91

PACKING

Export Packing Services, Ltd. ... 78
 Gosherton, John, & Co. ... 108

PAINTS

British Paints, Ltd. ... 7

PARTITIONING

Abix, Ltd. ... 30
 Art Metal Construction ... 33
 Ditchburn Equipment (Sales), Ltd. ... 109
 Roneo, Ltd. ... 17
 Sankey-Sheldon, Ltd. ... 107
 The Welconstruct Co. ... 26

PENSION CONSULTANTS

The Noble Lowndes Pension Service ... Prospect viii

PHOTOGRAPHIC REPRODUCING EQUIPMENT

Anson, G. W., & Co., Ltd. ... 73
 Oxalid Co., Ltd. ... 103

PNEUMATIC TUBE SYSTEMS

Dart Cash Carrier Co., Ltd. ... 34
 Lamson Engineering Co., Ltd. ... 106

POSTAL FRANKING MACHINES

Universal Postal Frankers ... 26

PRINTERS

Petty & Sons, Ltd. ... 40
 Young, H., & Co. (Printers), Ltd. ... 114

SAFES

Milner's Safe Co., Ltd. ... 12
 Remington-Rand, Ltd. ... 4
 Roneo, Ltd. ... 17
 Seldex, Ltd. ... 10
 Shannon, Ltd. ... 101

Cover iii

SEATING

Abix, Ltd. ... 30

Dare-Ingis Products, Ltd. ... 6
 Evertaut, Ltd. ... 24
 Leabank Office Equipment, Ltd. ... 18
 Metchair, Ltd. ... 86
 Office Machinery, Ltd. ... 102
 Poulitney, S. & B., Ltd. ... 103

STEEL STORAGE EQUIPMENT

Bawn, W. B., & Co., Ltd. ... 28
 Brown, F. C. ... 31
 Copeland-Chatterton Co. ... 25
 Gascoigne Co., Ltd. ... 111
 Harvey, G. A., & Co. ... 109
 Milner's Safe Co., Ltd. ... 12
 Odoni, Alfred A., & Co. ... 95
 Randalrak, Ltd. ... 114
 Roneo, Ltd. ... 17
 Sankey-Sheldon, Ltd. ... 107
 The Welconstruct Co. ... 26
 Westwood, Jos., & Co., Ltd. ... 30

TABULATING MACHINES

Cave, C. W., & Co., Ltd. ... 1

TELEPHONE AMPLIFIERS AND ACCESSORIES

Fonadek (Branson), Ltd. ... 31
 Televox, Ltd. ... 109

TELEPHONES AND SOUND EQUIPMENT

Dictograph Telephones ... 27
 Gent & Co., Ltd. ... 12
 Magneta Time Co., Ltd. ... 28
 Reliance Telephone Co. ... 116
 Synchronome Co., Ltd. ... 107
 Telephone Rentals, Ltd. ... 83

TICKET ISSUING MACHINES

Automaticket, Ltd. ... 96

TICKET PRINTING MACHINES

I.B.M. United Kingdom ... 85

TIME RECORDERS

Blick Time Recorders ... 9, 32
 Dictograph Telephones ... 27
 Gent & Co., Ltd. ... 12
 Gledhill-Brook, Ltd. ... 30
 I.B.M. United Kingdom ... 85
 Magneta Time Co., Ltd. ... 28
 Synchronome Co., Ltd. ... 107
 Telephone Rentals, Ltd. ... 83

TYPEWRITERS AND ACCESSORIES

British Olivetti, Ltd. ... 23
 I.B.M. United Kingdom ... 85
 Imperial Typewriter Co. ... 19
 Remington Rand, Ltd. ... 4
 Sterling Typewriter Co., Ltd. ... 83
 Underwood Business Machines, Ltd. ... 44

VENTILATION EQUIPMENT

Colt Ventilation, Ltd. ... 3

VISIBLE RECORDS

Art Metal Construction ... 33
 Bulmer's (Calculators) ... 21
 Copeland-Chatterton Co. ... 25
 Kalamazoo, Ltd. ... 4
 Moore's Modern Methods ... 99
 Remington-Rand, Ltd. ... 4
 Roneo, Ltd. ... 17
 Seldex, Ltd. ... 10
 Shannon, Ltd. ... 101

"SYSTEM" Desk Diaries

Unique and attractive advertising diaries at extremely moderate prices, to give you all-the-year-round publicity in 1954.

Write for **FREE Illustrated Leaflet to:**
SHAW PUBLISHING CO. LTD., 180 Fleet St., London, E.C.4.

**IS YOUR
NAME IN
THIS LIST OF
COLT USERS**

Wm. MacDonald & Sons (Biscuits) Ltd.
English Electric Co. Ltd.
Dairy Supply Co. Ltd.
Horrocks & Sons (Merthyr & Newport) Ltd.
The Steel Company of Wales Ltd.
Metal Box Co. Ltd.
Hodges & Sons (Clothing) Ltd.
John Williams & Sons (Cardiff) Ltd.
Mechans Ltd.
Montgomery Stubbs & Co. Ltd.
Clyde Alloy Steel Co. Ltd.
Hardywick Limited
Snowite Ltd.
British Sugar Corporation Ltd.
Smith-Clayton Forge Ltd.
United Steel Structural Co. Ltd.
Coleridge Engineering Co. (Sheffield) Ltd.



DE HAVILLAND AIRCRAFT CO.,

Wildt & Co. Ltd.
General Housing Co. Ltd.
South Eastern Electricity Board.
Haines & Sons
Adrema Ltd.
Wolf Electric Tools Ltd.
I. & R. Morley Ltd.
North Eastern Trading Estates Ltd.
A. R. Poole & Sons Ltd.
The Cleveland Bridge & Engineering Co. Ltd.
George W. Horner & Co. Ltd.
George Angus & Co. Ltd.
A. Reynolds & Co. Ltd.
M. Frith & Co. Ltd.
Utilis Coat Co. Ltd.
John Crossley & Sons Ltd.
Wakefield Shirt Co. Ltd.
David Brown Tractors (Engineering) Ltd.
Thomas C. Fawcett Ltd.
Hopkinson Electric Co. Ltd.
James Keiller Ltd.
Laporte Chemicals Ltd.
J. & G. Meakin Ltd.
Patent Shaft & Axletree Company Ltd.
Featman & Co. Ltd.
De Havilland Aircraft Co.
Hale & Hale Ltd.
Samuel Booth & Co. Ltd.
Tip Top Cleaners Ltd.
The Distillers Co. Ltd.
Bourjois Ltd.
Adhesive Tapes Ltd.
Southborough Sheet Metal Works Ltd.

...one of over 5,000

**major industrial organisations with
natural ventilation planned by **COLT****

Having supplied blackout ventilation equipment to the De Havilland Aircraft Co. at Hatfield during the war, COLT'S received their first post-war contract from this Company in November, 1949. The problem was the improvement in the ventilation of the Boiler House and was efficiently and economically solved. Since then forty-four other contracts have been placed by them, thus step-by-step a very comprehensive ventilation system has been built up without any large single capital outlay.

The installation of COLT equipment has been done in normal working hours

without hindrance to manufacturing processes and without structural alterations. Our records show that the total capacity of the natural ventilation equipment supplied is approximately half a million cubic feet of air per minute and this without electric motors, wiring, switchgear, noise or running costs. This is an example of ventilation by standard units, some of every type in the COLT range having been used to deal with the wide variety of problems.

**FREE MANUAL, with full specifications
of the wide range of Colt Ventilators is
available on request from Dept. G.22/18**

COLT



THE SPECIALISTS IN PLANNED NATURAL

VENTILATION

COLT VENTILATION LTD • SURREY • TELEPHONE: ELMbridge 6511-5

Also at Birmingham Bradford, Bridgend (Glam.), Bristol, Dublin, Edinburgh, Liverpool, London, Manchester
Newcastle-upon-Tyne, Sheffield and Warwick.

**A FRESH LIST
APPEARS IN
EACH ISSUE**



Up in the morning EARLY

... only the start of the process of bringing the famous "Cow & Gate" products to your table. It is still "up in the morning early", but the milkmaid of old has long been replaced by modern mechanical milking methods. And throughout this organisation the latest methods have always been adopted to keep the very high standard of quality. The same progressive efficiency is also apparent on the clerical side. One problem common to most manufacturers is the analysis of Buying and Costing. Take as an illustration a pack of "Cotsdale" Cheese . . . day by day recording of the purchase and usage of ingredients . . . strict stock control of materials contributing to its attractive pack. No wonder the Kalamazoo Visible System was chosen to replace a more cumbersome method of keeping strict, day by day check on costs. Reports say that there is nearly 50% saving in time and 75% saving in stationery. It is not even necessary to be "up in the morning early" to realise the value of such a system.



Just one of the ways in which

Kalamazoo

serves Industry, Commerce and Public Administration

KALAMAZOO LTD · NORTHFIELD, BIRMINGHAM 1

THE CASE OF THE SATISFIED SALESMEN



Marmite, in its handy wide-topped jar, is now a familiar sight in grocers' shops—and in kitchens—up and down the country. The Marmite salesmen mightn't have done such a fine job without efficient backing from headquarters...



Customers could never complain of a bottleneck (nor could the head office!)

AT THE WAR'S END, the Marmite Food Extract Co. Ltd. were faced with a problem—and an opportunity. For years, supplies of Marmite had been far below demand. Raw materials were short, and most of the output went to the Armed Services. Then the situation changed. It was time for aggressive selling. The sales-force was ready; new territories could be opened up; new demand could be created and satisfied.

But, in support of this sales cam-

paign, could the office departments cope with the great volume of figuring work involved? To plan its production in advance, the company realized that it must have detailed statistics on the selling operation—sales analyses by travellers, by areas, and by class of outlet, would have to be prepared day by day.

Some years earlier the company had used Burroughs machines to cut six weeks off the time needed to make up the books at the year's end. Now, with this new problem, Burroughs were consulted again. After investigation, Burroughs specialists recommended the installation of Burroughs Typewriter Accounting Machines on which complete records of sales, purchases, and other data could be classified in many different ways.

Result: So smoothly and quickly do these Burroughs machines serve the company's offices that a fact-and-

figure picture of the whole sales operation is always on hand. Details of sales in any kind of shop in any county can be produced at a moment's notice—a great help to the company in planning production and distribution in advance.

What about you? If your business could benefit from faster, accurate figuring, call in Burroughs. They can offer advice on all the latest systems, for Burroughs market the world's broadest line of modern record-keeping machines: Adding, Calculating, Accounting, Billing and Statistical Machines, and Microfilming Equipment. Remember, once you have any Burroughs machine, Burroughs Service guarantees its efficiency in operation.

Call Burroughs today. Burroughs Adding Machine Limited, Avon House, 356-366 Oxford Street, London, W.1. Sales and Service Offices in principal cities round the world.



Seen operating a Burroughs Typewriter Accounting Machine in the offices of the Marmite Food Extract Co. Ltd. is Miss Doris Miller. This is one of the fast and versatile machines that are helping to keep the salesmen (and their customers) satisfied.

For expert advice on business figuring

CALL IN Burroughs



How can
you get
tired . . .

floating

on

air?

THE NEW

TYPIST'S SWIVEL POSTURE CHAIR

WITH THE

'floating' seat

ENSURES FREEDOM FROM FATIGUE

*incorporating all these
important new features*

- deeper tilting backrest — more support
- square tube backstrut — greater rigidity
- sprung central column — maximum comfort
- adjustable height 'body curved' seat and back — minimum fatigue

Rigidly constructed and expertly designed for perfect balance and ease of movement.

Dualized finish with a variety of coverings in a choice of many colours.

the secret's
in the spring



Model No. S.10

made by **du-al**

MANUFACTURERS OF TUBULAR STEEL FURNITURE
FOR OFFICE • SHOWROOM • FACTORY • CANTEEN
ASSEMBLY HALL • HOSPITAL • CINEMA ETC.

DARE-INGLIS PRODUCTS LTD. DU-AL HOUSE, BYRON RD, HARROW, MIDDX.

Telephone : HARrow 5141 Telegrams : DU-AL HARROW

BUSINESS

A
Great Step
Forward in
Factory
Maintenance



AQUASHEEN

WATER THINNED ENAMEL

CUTS WORKS MAINTENANCE COSTS

Executives responsible for works maintenance will welcome "AQUASHEEN", the new Water Thinned Gloss Enamel and latest development of British Paints Limited.

"AQUASHEEN" cuts labour costs—the highest single factor in painting—because it can be applied with large wall brushes as quickly, as easily as water paint.

"AQUASHEEN" cuts material costs. The initial cost is less than conventional gloss paints; it covers approximately one fifth greater area.

"AQUASHEEN" gives an enduring gloss finish; it is easily washable; there is no objectionable paint smell. It complies with the Factories Acts, claiming 7 years exemption from repainting.

Available only from the sole manufacturers and distributors who will gladly send you full particulars.

**"AQUASHEEN" IS FOR INTERIOR
USE ONLY.**

**"AQUASHEEN" IS NOT A LATEX
EMULSION PAINT.**

BRITISH PAINTS LIMITED

PORTLAND ROAD, NEWCASTLE UPON TYNE, 2 • CREWE HOUSE, CURZON STREET, LONDON, W.1.
Telephones: Newcastle 25151 • London, Grosvenor 6401-5.





MR. SMITH PUTS IT c l e a r l y

And it will be just as clear on paper — because Mr. Smith has heard about "Titan". Only "Titan" ribbons give, right from the start, the beautifully crisp, clear typing that makes a letter look as if it really means business. Made from an entirely new, fine-caliper fabric (impregnated with a new, specially-developed non-smudge ink), "Titan" ribbons have been designed for greatest economy and performance coupled with type-face sharpness and clarity of print. They're pleasanter to use, too, because the end is treated for clean handling. Have them order some "Titan" ribbons right away — while you think of it.



TYPEWRITER RIBBON

COLUMBIA RIBBON & CARBON MFG. CO. LTD.
Kangley Bridge Road, Lower Sydenham, London, S.E.26
Telephone SYDenham 5193 - 6

BUSINESS

THE TEST OF TIME



BLICK can offer you, on good delivery, a full range of Models—either mechanically (8-day) or electrically operated—suitable for Factory Attendance Recording; for Office Attendance Recording (Signature type); for Job Timing or for Time and Date stamping of forms and documents.

• • • • •

BLICK Models range from the latest Super-Automatic, Impulse-controlled, Metal-cased, Electric Time Recorders usually preferred for large, modern factories to the small, simple, Wood-cased Time Recorders with 8-day Spring-driven movements often preferred by smaller firms because of their cheapness.

• • • • •

Tell us your problem or give us your requirements and we will give you our advice, quotation and full particulars of the right Model for YOU.

• • • • •

Write or phone TO-DAY to:

BLICK Time Recorders have stood the Test of Time because they are :

- ★ Strong, accurate and reliable.
- ★ Up-to-date and modern-looking.
- ★ Built to last.
- ★ Moderately priced.
- ★ Backed by first-class service.

• • • • •

BLICK's 7,000 Users include such names as I.C.I., Ford, Shell, B.T.H., J. Lyons, Midland Bank, Marks & Spencer, Meredith & Drew, John Brown, Rolls-Royce, L.P.T.B., Imperial Tobacco, Players, B.B.C., Abbey National C.W.S., David Cope, N.C.B., United Dairies, B.E.A., Patons and Baldwins, G.P.O., Schweppes, Anglo-Iranian, Nestles Milk, Head Wrightson, L.C.C., Raleigh, Ransome & Rapier, Standard Motors.



The Popular Blick Model 518.
(Mechanically or electrically operated)

BLICK TIME RECORDERS LTD.

96, ALDERSGATE STREET, E.C.1.

Telephone: MONarch 6256/8

Branches at Birmingham, Cardiff, Leeds, Manchester, Newcastle and Nottingham.



*What has scent got
to do with Seldex?*

It's like this: perfume goes into a bottle, and both are bought together. But although the bottle is half the battle it's the perfume that's the point of the purchase! In the same way—Constructors Seldex is sold in handsome steel containers, *but it's the Seldex System inside those containers which counts.* Our business is not just containers, it's supplying the Seldex Visible Recording System to suit your *precise* needs.

A fully qualified member of our Technical Staff is always available for those who seek advice and assistance.

SELDEX—Precision-Tool of Management

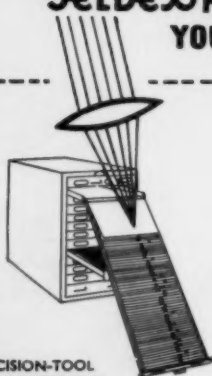
Men who command, who plan, who manage, must have facts—all the facts, at their fingertips; classified, recorded and presented

instantly in just the way they need them. Facts are the basis of good business, *future* business. Mail coupon today.

CONSTRUCTORS

Registered trade mark

**SELDEX FOCUSES
YOUR FACTS**



**PRECISION-TOOL
OF MANAGEMENT**

SELDEX

VISIBLE RECORDING SYSTEMS

CONSTRUCTORS SELDEX (DEPT. B)

TYBURN ROAD · ERDINGTON · BIRMINGHAM, 24

Phone: Birmingham, Erdington 1616 (P.B.X.)

Please send me details of Seldex Systems particularly relating to
Departments and a free copy of "Seldex, how it works."

LONDON OFFICE: 98, Park Lane, W.1. MAYfair 3074. Also at Manchester, Leeds and Bournemouth.

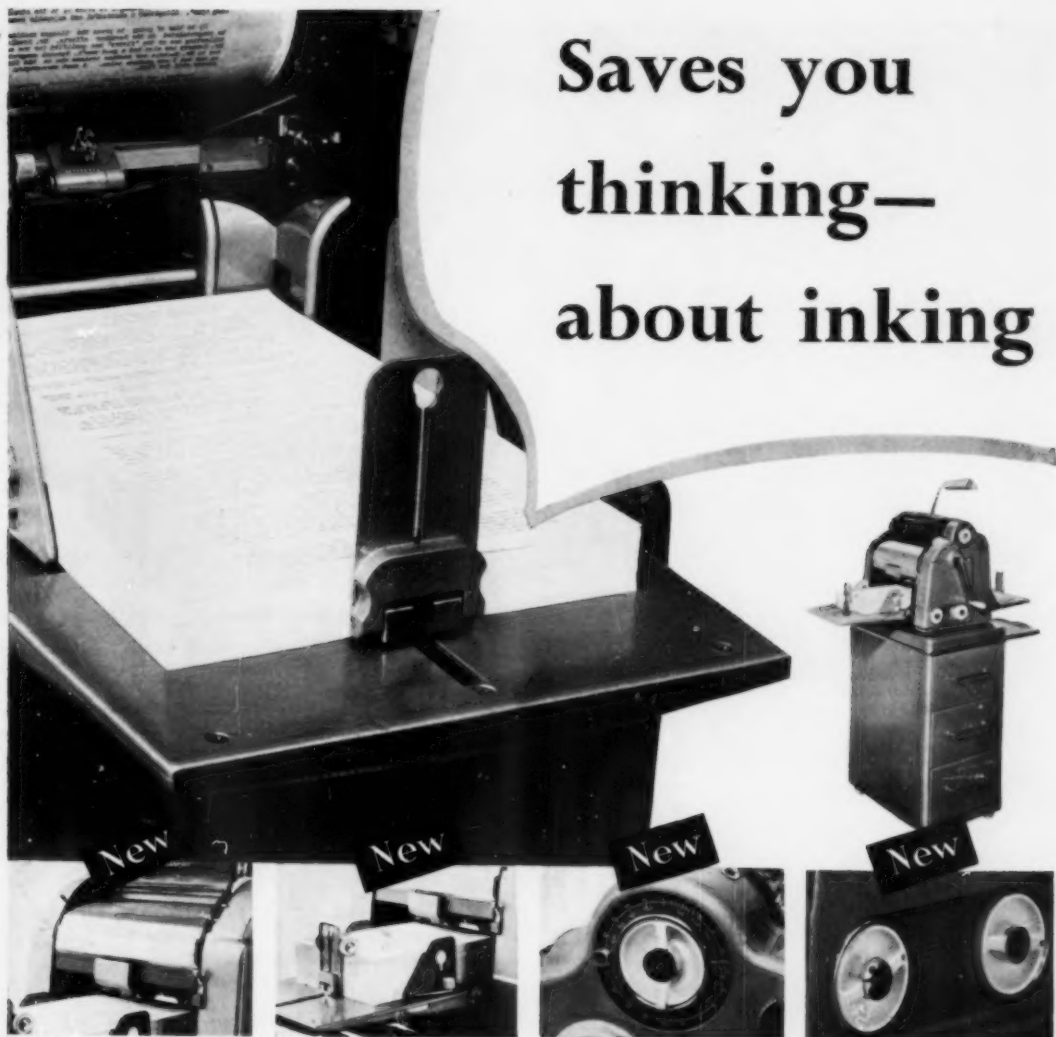
Name

Firm

Address

MAKE FACTS IMMEDIATELY AVAILABLE

Each set of 10 copies of this advertisement is sent free of charge to the first 1000 persons who apply for it.



Saves you thinking— about inking

The heart of the matter . . . secret of Gestetner's new model is synchronised self-inking—an ingenious new mechanism that delivers the precise amount of ink needed as each copy-sheet passes through the machine.

You have only to see the 260 Automatic in action with its many new features to realise that once again Gestetner have set new standards in duplicating efficiency.

GESTETNER LIMITED, HEAD OFFICE, 25 ALDWYCH HOUSE, LONDON, W.C.2. Tel. HOLborn 8700

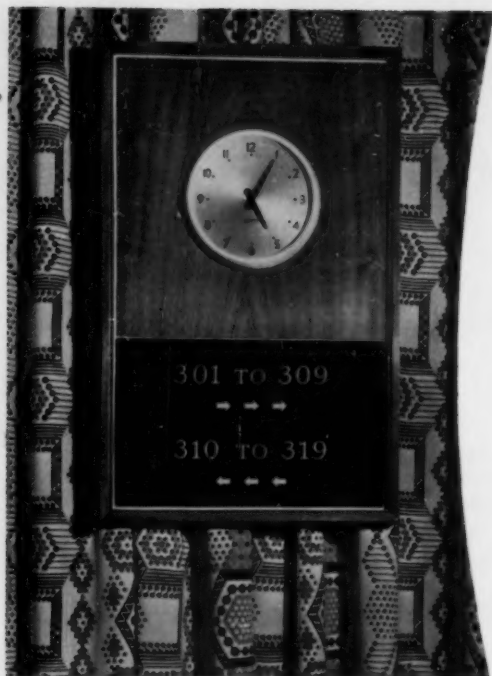
the NEW

Gestetner **260**

automatic
with synchronised self-inking

'CROWNING ACHIEVEMENT' an outline of this new Gestetner has just been published. We shall be glad to send your copy on application to 25 Aldwych House.





Photograph by permission of Architectural Review.

"The right Time for Life"

The headline of this advertisement, we feel, adequately conveys the real value of a Gents' Controlled Electric Clock System.

The complete installation of 24 standard slave clocks and a number of special architect designed slave clocks, all controlled by one Master Clock, ensures accurate uniform time throughout the new Time—Life—International Building, New Bond Street, London.

Precisely the same accurate time is available for your establishment if you specify a . . .

GENTS'
OF LEICESTER

**Controlled Electric
Clock System**

Full illustrated details are available free on request, along with a list of other notable users. Please write for our latest Catalogue Book 5 Section 1T.

GENT & CO LTD • FARADAY WORKS • LEICESTER

London Office and Showrooms: 47 Victoria Street, London, S.W.1.
Also at NEWCASTLE • BIRMINGHAM • BRISTOL and
GLASGOW and agents in 51 countries throughout the world.



The **Safe** way of Filing

THE PROTECTION of important correspondence and documents is too often entrusted to an ordinary steel filing cabinet, which does not, of course, offer a high degree of resistance against fire, fall or theft. These Safe Filing Cabinets are of special construction, incorporating a Milners Fire-Resisting Safe, the interior of which is fitted with either a three or four-drawer Vertical Filing Cabinet, which can be supplied with castor base units if required. These give the maximum protection against the aforementioned hazards.

They can be supplied complete with the 'Milspan' suspended pocket filing system. Modern and practical, this system provides a separate pocket for

each file. 'Milspan'—made only by Milners—saves time, saves trouble and saves the irritation that misplaced files so often cause.

Company Secretaries and other guardians of important papers should seriously consider the installation of at least one of these Safes in their private offices.

Milners
SAFE FILING CABINET

**Milners . . . the safest
Safe investment**

MILNERS SAFE CO. LTD., 58, HOLBORN VIADUCT, LONDON, E.C.1. Telephone: CENTral 0041/5. Telegrams: Holdfast, Cent, London.



LOOK OUT! THOSE FEET ARE WALKING AWAY WITH YOUR MONEY

FLOOR maintenance is so often ignored by management as being just another of those static costs which swell overheads. Yet the costs of maintaining large floor areas that have to stand up to heavy traffic can often be cut by as much as 50%. How? By reducing the number of man hours spent in cleaning, waxing and polishing. For no less than 95% of what it costs to maintain floors is absorbed by labour. S. C. Johnson & Son will be delighted to demonstrate how that saving can be effected with your present staff and equipment.

Johnson's have for years, now, been the world's largest producers of polishing and maintenance materials. They have well over half a century's experience in research on the problem

of heavy-duty floor maintenance materials.

Today, Johnson's Traffic Waxes embrace a whole range of specialised waxes for all kinds of heavily used floors from rubber and wood, to linoleum and asphalt. Waxes, that because they wear hard, are easier to apply, easier to buff and give lasting protection, can and will cut labour by as much as 50%. And that is real economy.

Ask your maintenance man to look into the Johnson way of maintaining floors — it may well save your Company a whole lot of money.

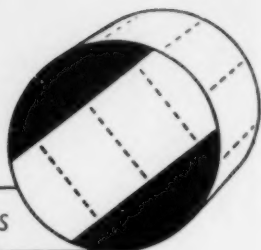
A booklet, "How to Care for your Floors," is available free to buyers and maintenance men on application to Dept. B. at the address below.

MAINTENANCE DIVISION

S. C. JOHNSON & SON LTD, WEST DRAYTON • MIDDLESEX

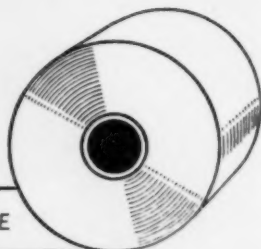
Specialized

ANY SIZE · PLAIN OR WITH ACCURATE HOLE OR SLOT PERFORATIONS



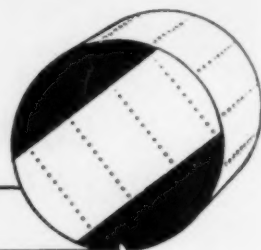
Paper

PLAIN OR GUMMED IN ANY WIDTH FOR ANY TYPE OF MACHINE



Rolls...

ANY COMBINATION OF SIZE · WIDTH OR PERFORATION



We are specialists in the production of paper rolls for all individual requirements, accurately and cleanly wound in any width and for all types of specialized machines

Your enquiries will have our prompt and careful attention. May we quote you ?

HUNT & COLLEYS LTD. SPECIALISTS IN THE MANUFACTURE
OF PAPER ROLLS FOR INDUSTRY

HUCKNALL ROAD · NOTTINGHAM · TELEPHONE: 61088/9



33 YEARS
of experience
in mechanical
handling
problems



1953



TRUCKS, TRACTORS & LOCOMOTIVES

When it is a question of moving anything anywhere by mechanical means, we are almost certain to have an answer to your problem. Our wide experience in this field has resulted in the design and production of mechanical handling equipment to suit all purposes, and our fully-trained Sales Engineers are always at hand to give you advice and service.

WINGROVE & ROGERS LTD

Dept. B/G, ACORNFIELD ROAD, KIRKBY TRADING ESTATE,
Nr. LIVERPOOL.

Telephone: Simonswood 2237.

And BROADWAY COURT, BROADWAY, LONDON, S.W.1

Telephone: Abbey 2272



1920



1921



1926



1929



1932



1935



1951



1950



Is there a dripping tap in your business?

● **Water is cheap enough**, but you would certainly turn off a dripping tap. Yet in your business, as in thousands of others, there may be a *steady flow of electricity running to waste* — power that does no work, and shows only on your quarterly bills.

This wastage can be considerable: many manufacturers subject to a kV.A max. demand tariff or P.F. penalty clause have now been able to save 18% to 35% of their power costs — and this without expensive plant alteration or economies in production.

An outstanding instance was that of a paper board mill where a necessary plant extension involved either a capital outlay of £36,000 or an additional annual expenditure of £18,000 on electric current. Actually,

the result was finally achieved at a total cost of only £3,000.

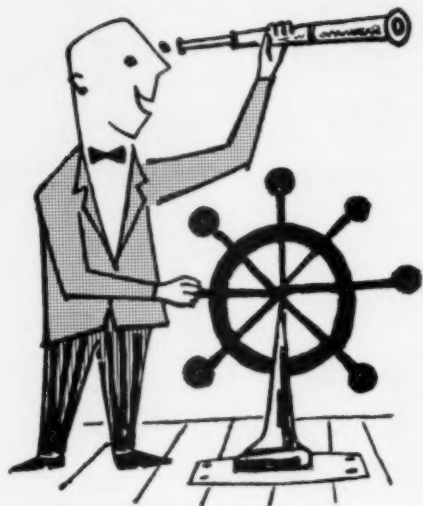
How is it done? Power Factor correction by T.C.C. is the answer. No matter how large or small the factory, a saving can be guaranteed. If you would know more about this money-saving scheme *that pays for itself in 12 to 18 months*, write for the two free non-technical booklets "More for your Money" and "The Evidence". They should convince you that a T.C.C. engineer can show you how to cut your bills and make electricity really work for you.



THE TELEGRAPH CONDENSER CO LTD

Specialists in Condensers since 1906

Industrial Division: NORTH ACTON · LONDON · W.3 Telephone: ACORN 0061 (9 lines)



for complete control

To be able to see at a glance the exact state of any activity of your business you should install Roneo Visual Charts. They are individually designed by experts to tell you what you want to know—when you want to know it.

ADMINISTRATION



Distribution of Personnel · Income and Expenditure · Advertising Programmes · Development Schemes, etc.

PRODUCTION



Stores and Materials · Loading of Machines · Progress of Manufacture · Maintenance of Plant, etc.

SALES



Progress of Sales toward Targets · Fluctuations in Demand · Development of Territories · Results of Special Drives, etc.

call in **RONEO** VISUAL CHARTING
and do the job **PROPERLY**

RONEO LTD.

17 SOUTHAMPTON ROW · LONDON · W.C.1 · TEL: HOLBORN 7622

Please send me particulars of

Mr. _____

**RONEO
VISUAL
CHARTS**

"No! I can't see him!"

Tell him I'm busy. Tell him I've got meetings every day this week—including Sunday. Tell him . . . You ought to know by now that I don't see travellers. What? . . . Not a traveller? A man from SUMLOCK! Well, why the deuce didn't you say so? I know that name! I'm free at 3.30 on Thursday . . ."



Busy men know that half an hour with a SUMLOCK consultant is time well spent. Because figuring the SUMLOCK way can transfer a load of routine office work from senior executives to junior staff—and with absolute safety!

ALWAYS SEE THE MAN FROM SUMLOCK!

SUMLOCK LIMITED, 1 Albemarle Street, London, W.1
Telephone: HYDe Park 1331

Branches in: Belfast, Birmingham, Bristol, Card'ff, Glasgow, Leeds, Leicester, Liverpool, Manchester, Newcastle, Nottingham, Sheffield, Southampton

**for
a
good
day's
work**



*Type KJ1
fully adjustable
chair for
the Secretary.
The chair
that promotes
good will
and good work.*

LEABANK WORKCHAIRS

Write for details of full range of office and factory chairs.
LEABANK OFFICE EQUIPMENT LTD.
19 Clifton House, Euston Road, London, N.W.1

Ask the Chief Typist

Experience has taught the chief typist to value a typewriter for qualities that may not be instantly discernible. Take the new Imperial. It's a quick, quiet and thoroughly efficient typewriter, but the chief typist will tell you that it's much more than that. Suppose, for instance, that a long and complicated balance sheet is being typed and an urgent letter is required. The long carriage, complete with balance sheet, can instantly be removed from the machine, the letter typed, and the balance sheet completed later. And that's only one of the many advantages made possible by the exclusive Imperial feature of interchangeable carriage, platen roller and type-unit.

Imperial



IMPERIAL TYPEWRITER COMPANY LIMITED · LEICESTER

JANUARY, 1954

CRC15

19

LOWER SELLING COSTS!

ONE TYPING PRODUCES ALL NECESSARY DOCUMENTS

In most selling organisations today one of the biggest overhead expenses is paperwork. For every order that is received, eight, ten, fifteen even twenty forms may have to be produced—order acknowledgement, stores copies, production copies, despatch notes, labels, invoice, accounts copies and so on—all containing in part, or whole, the same information.

By reducing all these to a single writing operation clerical costs can be cut by 50%, 75% or even more—and all possibility of transcribing errors is eliminated.

The only problem is how to type an invoice set with so many copies in it and obtain accurate register and legibility on all parts—easily.

There is in fact only one method of doing this—with Alacra sprocket-fed continuous forms. Perfect alignment and register of the typewritten matter is completely automatic—and infallible. And, incidentally, interleaving and removal of carbons is eliminated.

In concrete terms, a typist can type 1,000 Alacra invoice sets, *without once removing her hands from the key board*—and all the sets will be perfect, whether they contain 2 or 20 copies.

The saving in typing time is obvious. And the overall savings in paperwork costs which this all-in-one writing system will produce are enormous.

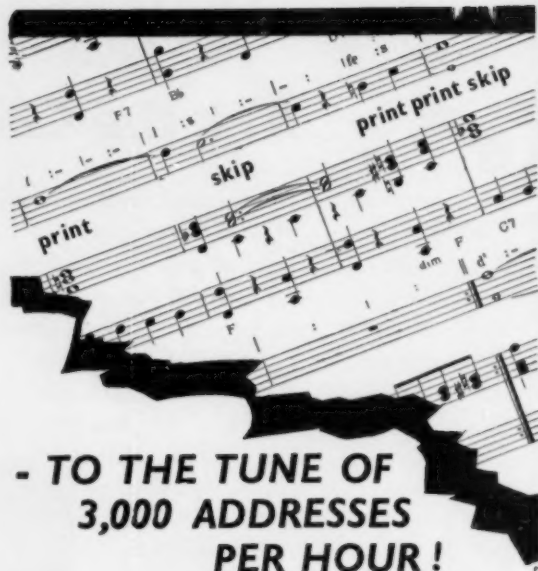
Furthermore the Alacra method can be applied to any popular make of typewriter and does not tie the machine down to any particular job.

Write now for full information to the address below and see how this system could be applied to reducing your own paperwork costs. The words "Alacra Invoicing" on your letter-heading will suffice to bring you full details by return.



BUSINESS METHODS

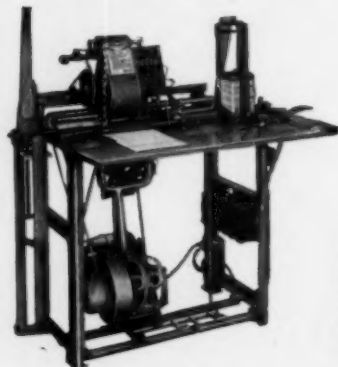
W. H. SMITH & SON LIMITED
44, Alliance Road, Western Avenue, Acton, W.3.



- TO THE TUNE OF 3,000 ADDRESSES PER HOUR!

With the AUTOMATIC SELECTOR/REJECTOR attachment, the "Addressall" will select and address any given name classifications or combinations of same, from a general list, whilst automatically skipping others, and without dis-

turbing the sequence of any stencil in the file. With the SHEET FEED attachment, the "Addressall" will automatically list names, numbers, or other data in a continuous column form on pay sheets, etc. etc.



These are but two of the many advantages to be gained by installing the "Addressall"—the answer to every known name or data writing problem!

Addressall

MACHINE COMPANY
11-13 SOUTHAMPTON ROW, LONDON, W.C.
Telephone: HOLborn 3571-3572

★ WILL REPEAT, SKIP, DUPLICATE OR TRIPLICATE ANY DESIRED ADDRESS AT WILL!

FRIDEN

GIVES ALL THE ANSWERS

Whatever kind of figure work you have to do, there's a Friden machine to help you do it more quickly and more accurately. Solidly built to give you years of trouble-free service, Friden electric calculators have advantages possessed by no other calculating machine sold in this country.

The model illustrated, STW 10 Ultramatic, includes :—

- * Fully automatic multiplication — with automatic accumulative multiplication and negative multiplication.
- * Split dial clearance and dial accumulator locks, permitting simultaneous accumulation of products on one side of the dials as individual products appear on the other side.



Why not ask our representative to call and demonstrate the Friden machine which is suited to your particular work? There is one for every purpose.

BULMER'S (Calculators) LIMITED

EMPIRE HOUSE · ST. MARTINS LE GRAND · LONDON · E.C.1 · IN THE SHADOW OF ST. PAULS
TELEPHONE: MONARCH 9791

JANUARY, 1954



JENKINS FIDGEON

LTD

Meadows Road, Kidsgrove
STOKE ON TRENT
Telephone: Kidsgrove 368



**Ten-Drawer
Tabulating Unit**

Removable Trays complete with follower block are fitted 2 per drawer.

10 DRAWERS for cards $7\frac{1}{2}$ " wide x $3\frac{1}{4}$ " high
Overall size:

Height $51\frac{1}{4}$ ", Width $19\frac{1}{4}$ ", Depth 28"
Capacity 50,000 Cards

Standard Vertical Card Index Cabinets for all standard card sizes.

Purpose made installations for all filing systems.

QUIZ

...FOR MEN
IN EXECUTIVE
POSITIONS

1. Boiler flue cleaning today can be a clean and simple operation. Why is this?
2. How can you load, convey and bag, cement under dust-free conditions?
3. How can you quickly and efficiently drain machine sumps which have no bottom outlet?
4. How can you best reclaim valuable dusts?
5. How can you best remove loose 'fly' from textile machinery?

Answers to all these questions will be found in an informative booklet 'The Versatile Vacuum'—all about modern methods for removing, conveying and reclaiming of industrial dusts and fragments. May we send you a complimentary copy?

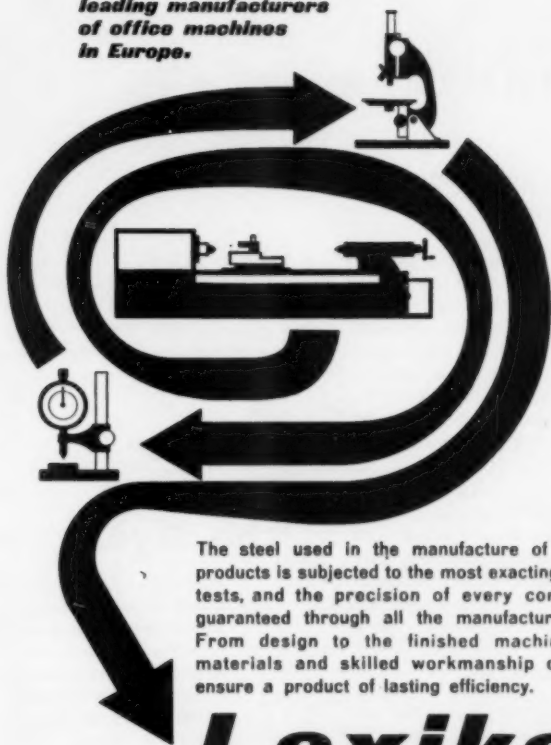
B.V.C.
BRITISH VACUUM CLEANER

**INDUSTRIAL VACUUM
CLEANERS**

THE BRITISH VACUUM CLEANER & ENGINEERING CO. LTD
(Incl. 1/41) GOBLIN WORKS, LEATHERHEAD, SURREY.

BUSINESS

**leading manufacturers
of office machines
in Europe.**



The steel used in the manufacture of all Olivetti products is subjected to the most exacting laboratory tests, and the precision of every component is guaranteed through all the manufacturing stages. From design to the finished machine, quality materials and skilled workmanship combine to ensure a product of lasting efficiency.

Lexikon

An office typewriter
of entirely new design
and superior workmanship

olivetti



Price: £55.0.0d.

Made in Great Britain by **BRITISH OLIVETTI Ltd.** 10 Berkeley Square - London W 1

Authorized dealers throughout the country

FACTORY: Summerlee Street - Glasgow E 2

JANUARY

THE SINGULARITY OF SNOWMEN

The Snowman, though we know him to be a doomed figure, has nevertheless an odd kind of immortality. He is made in exactly the same way, for exactly the same purpose and with exactly the same material as he was made under Elizabeth I. In the 16th century he would not, of course, have worn an old Air Raid Warden's helmet; and it is doubtful if in those days he had taken up smoking. But in all essentials he is unchanged.

Even in the darkest days of austerity he could be erected without a licence; untrammelled by controls, private enterprise went to work with rare and complete spontaneity. Moreover, there has never been any question of the Snowman being made of anything else but snow and this, in an age when so much is synthetic, gives him a certain singularity. Impassive, faintly Churchillian, he broods upon the lawn, a lonely, comfortless figure in the early dusk. We cannot find it in our hearts to wish him a long life, yet, when the thaw comes, we are touched by his undignified declension into a grey, vestigial and amorphous stump of slush. But there is no need to pity his impermanence. He will be there again next year, and the year after, and the year after that. He is really, when you come to think of it, a good deal less impermanent than the rest of us.



The Midland Bank, too, will be there next year, and the year after, and the year after that, to provide unfailingly the banking facilities which the nation requires.

MIDLAND BANK



Seating Through the Ages

The Indian fakir may even enjoy his bed of nails for all we know, but most people prefer a seat designed for sitting upon—a seat which is comfortable because it has been anatomically designed—in fact an Evertaut Seat.



The Evertaut range is wide enough to provide the correct seating for practically all workers, irrespective of their job—in fact an Evertaut seat "hits the nail on the head" every time.

Please write for catalogue 2A

EVERTAUT LIMITED

THE SCIENTIFIC APPROACH TO MODERN SEATING

(Proprietors J. B. BROOKS & Co. Ltd)

WALSALL ROAD • PERRY BARR • BIRMINGHAM, 22b.

'Phone: BIRchfields 4587 (4 lines)

'Grams: "Evertaut Birmingham".

London Office: KERN HOUSE, KINGSWAY, W.C.2. Phone: HOL 0238

BUSINESS



*can't
cope....?*

Our PULL-AWAY ONE TIME CARBON SETS make it child's play. Just insert the complete set in the typewriter or accounting machine, and afterwards "pull-away" the carbons from the copies in one movement—no fuss, no bother, no smudgy work — it's quick, neat and efficient!



have a chat with
COPE-CHAT
the business efficiency experts.



**THE
COPELAND - CHATTERSON
CO. LTD.**

London Office & Showrooms: Exchange House, Old Change, E.C.4

Telephone : CItY 2284

Registered Office & Works—STROUD, GLOS.

Branches at : Birmingham, Bristol, Glasgow, Leeds, Leicester, Liverpool, Manchester, Newcastle-on-Tyne, Sheffield and South Wales. Agent in Eire, 63, Clanbrassil St., Dundalk.

Agents throughout the world.

The new **TOTOMETER**

Counting and Imprinting Machine

— for —

**Treasury Notes, Cheques, Postal Orders,
Cards, Coupons, Labels, Tickets, Bills, etc.**

with INFALLIBLE 100% ACCURACY

At speeds up to 55,000 per hour

★ ★ ★

*For demonstration and full details
write to:—*

**UNIVERSAL POSTAL FRANKERS LTD
90 REGENT STREET · LONDON W.1**

Telephone: REGent 2249

ENGLAND



STRIKINGLY
ATTRACTIVE

REASONABLY
PRICED

EFFICIENT



The Finest Edition of the New Flexible
ALUMINIUM VENETIAN BLIND

Streamlined, All Metal, in Many Colours for Offices and Factories

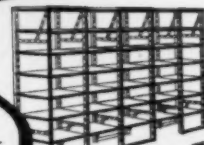
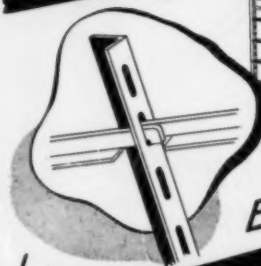
Just pin this to your notepaper, for a sample slat.

"Britain's Leading Blindmakers"

J. AVERY & CO., (Est. 1834) LTD.

81, GREAT PORTLAND STREET, LONDON, W.1. Museum 9217

SLOTTED ANGLE



**STORAGE
EQUIPMENT**

by
Welconstruct

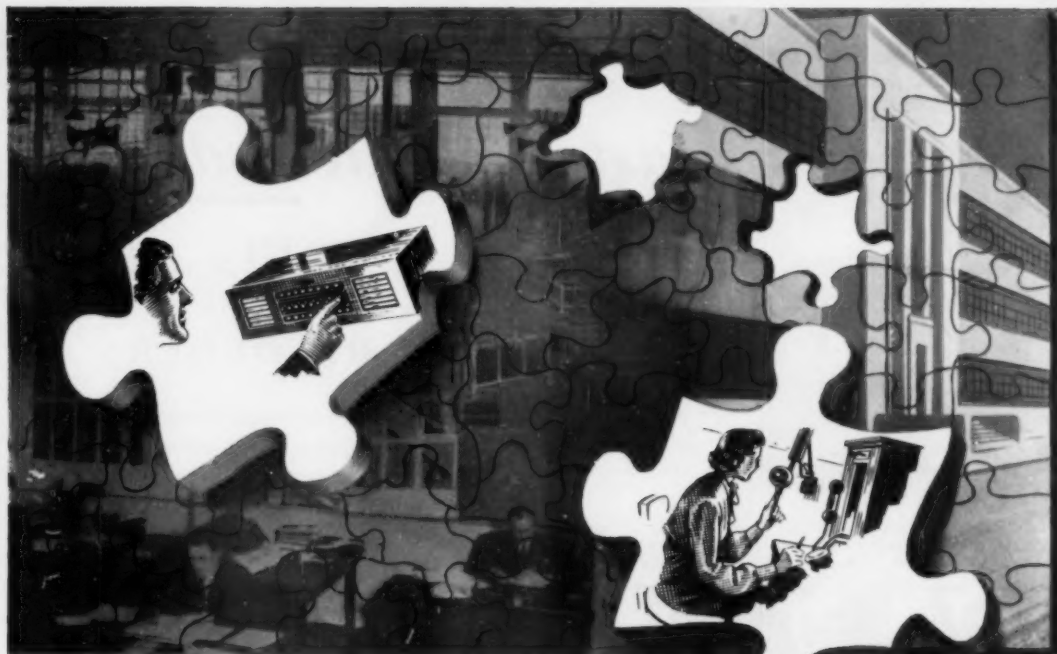
**INEXPENSIVE
ECONOMICAL...**

the Slotted Angle method of shelf erection has been brought to perfection by WELCONSTRUCT. Always complete yet never finished, Welconstruct Shelving will store anything in your Works, Warehouse or Shop. Our free illustrated brochure will tell you more, so write now for List 'B' to:

THE WELCONSTRUCT CO., LTD.
GRENVILLE BUILDINGS, CHERRY ST. BIRMINGHAM, 2
Tel: MIDland 1691.

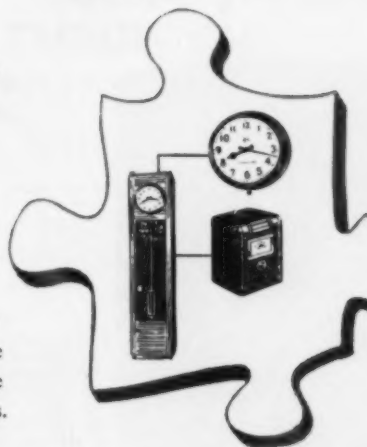
CYCLE RACKS ● BINS ● LOCKERS ● WORKPANS

BUSINESS



These pieces will fit into your business !

Dictograph offers many ways of increasing the efficiency of your company and saving you Time and Money . . . **Internal Telephone Systems** from 2 to 250 points or more, ensuring thought-quick-contact with any part of your organisation . . . **Staff Location Systems** to find key personnel when snap decisions have to be made . . . and **Impulse Clock and Timing Systems** providing accurate recording, sounding and indication of time—so important in these days of high production costs. Cash or Rental terms with complete maintenance. A telephone call or postcard will bring you full details.



DICTOGRAPH *Originators of loudspeaking telephones*
DICTOGRAPH TELEPHONES LIMITED

CHIEF SALES OFFICE : 200 ABBEY HOUSE, VICTORIA ST., LONDON, SW1 • ABBEY 5572 • BRANCHES THROUGHOUT THE COUNTRY
INTERNAL TELEPHONES • STAFF LOCATION • INDUSTRIAL MUSIC BROADCAST • IMPULSE CLOCK AND TIMING SYSTEMS



Phew! it's fast work in and out



MAGNETA the faster TIME RECORDER

SPECIAL FEATURES: One-hand automatic action:
mains or master-clock control: two-colour recording
system.

Available on hire terms.

THE MAGNETA TIME COMPANY LTD., GOBLIN WORKS, LEATHERHEAD, SURREY

Telephone: ASHTEAD 866



Quality at the RIGHT PRICE



the new MODEL '53 HELMSMAN STEEL CUPBOARD

A new, smart looking cupboard with rounded top edge... stove enamelled... fitted with an expagnolette 3-point locking bolt, secured with six-lever lock... 'Slidex' chromium plated door handles with padlock fixing holes... adjustable shelves at 1½ inch centres.

LIST PRICES

6'0" high—£16. 10. 0. + 61/11d. P. T.
4'6" high—£13. 17. 6. + 52/11d. P. T.
3'0" high—£11. 5. 0. + 42/3d. P. T.
(all heights: 36" wide x 18" deep.)

As the Makers, we offer

- Quantity discounts ● Special prices for complete installations
- Normal business credit
- Prompt delivery ● Wide choice of colours.

Mr. Quin at Larkwood 4411
will answer your enquiries.
Delivery Free—London Area

W. B. BAWN & COMPANY LTD

Byron Works, Blackhorse Lane, London, E.17



THE WAY to a BIGGER SALARY

If you are sincere in your determination to earn a bigger salary, the vital question you have to ask is "How can I best get the specialised training which I know I need?" There is a way—profitable and fascinating through the Home-Study Courses of The School of Accountancy.



The School's Courses in Accountancy, Secretaryship, Cost Accountancy, Management, etc., have led thousands of former students to positions as Directors, Managers, Chief Accountants, Company Secretaries, Cost Accountants, Works Managers, Office Managers, Auditors, Stores Controllers, etc. There are also Introductory and Junior Courses for younger men.

Thousands have made in TWO years the progress which otherwise would have taken TEN

The top men in innumerable concerns to-day were School of Accountancy-trained 10, 20—even 40 years ago. The bigger-salaried men of the future are now being trained by The School of Accountancy. Why step aside whilst other men step ahead? You, too can make your future secure. Let your action to-day be evidence that you seek and deserve success.



Send for this 100 page Guide to Careers.

Read it. Spend one evening quietly in your own home thinking about your future. It may well be the turning point in your career. For the sake of a brighter future, act now.

The School of Accountancy

56, Regent House, 6, Norfolk Street, Strand, London, W.C.2.
And at Glasgow.

★ THE PRODUCTIVITY REPORT ON

Production Control

SAYS:

"1 Every firm in Great Britain, large and small, should examine its present system of production planning and control in the light of this Report . . .

2 Those firms which find they are not at present operating an effective system on the lines indicated in this Report should establish a system to meet their needs without delay.

3 Small firms should devise a system which will meet their own special requirements. It is no excuse for a small organisation to say it cannot afford production planning and control. An efficient and simple system will undoubtedly result in increased productivity."

B & A have spent 25 years studying this subject . . . and have installed time and labour saving systems in every Industry in Great Britain.

The advice of our Systems Specialists is available to any organisation, large or small . . . to bring increased productivity through efficient production control and planning.

Write or phone the Systems Department:



BLOCK & ANDERSON LTD

58/60 KENSINGTON CHURCH STREET,
LONDON, W.8. Tel: WESTern 2531

* Published by the British Productivity Council.

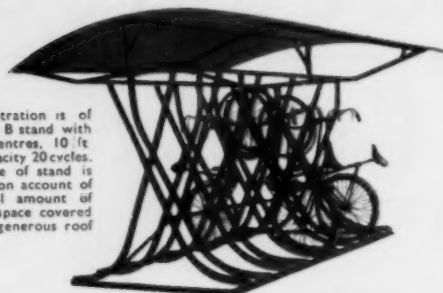
Price 5/-

ABIX

CYCLE STANDS

The Home of the British Cycle

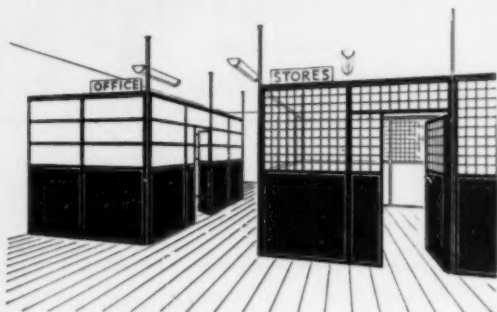
Abix Cycle Stands are constructed of steel throughout, stove enamelled green. Roof sheeting is normally of galvanised corrugated sheet steel. If required, sheeting can be supplied in Aluminium, Asbestos or Robertson Protected Metal.



The illustration is of our type B stand with 12 in. centres, 10 ft long, capacity 20 cycles. This type of stand is popular on account of the small amount of ground space covered and the generous roof cover.

STEEL PARTITIONS

Abix steel partitions are light, strong and fire resisting. Suitable for office or factory, they can be erected by comparatively unskilled labour. Catalogue on request.



ABIX (METAL INDUSTRIES) LTD

FACTORY EQUIPMENT SPECIALISTS

Taybridge Works, Taybridge Road, Battersea, S.W.11

Telephone: BAttersea 8666/7



INDUSTRIAL STEEL SHELVING
Storage Bins, Clothing Lockers, Cupboards
Makers of Steel Storage Equipment for 25 years

JOSEPH WESTWOOD & CO., LTD.
Napier Yard, West Ferry Road, Millwall, E.14.

Phone: EASt 1043 (4 lines)



Production costs are the sum of materials, overheads and man-hours . . . and the greatest of these is man-hours. Gledhill-Brook Recorders provide an accurate record of working time, and the relative statistics for an analysis of overtime and varying wage rates. The Gledhill-Brook System is essential equipment in every serious effort to improve production.

GLEDHILL-BROOK
TIME RECORDERS AND COSTING SYSTEMS

Enquiries to:

GLEDHILL-BROOK TIME RECORDERS LTD
38 EMPIRE WORKS - HUDDERSFIELD



MADE TO MEASURE for CODING IDENTIFYING CLASSIFYING

Illustrated are impressions of characters and figures of special numbering machines. They meet the many diverse problems of coding, classification and identification and are widely used in the Ball Bearing Industry and for the overprinting of labels, shirt and collar size marking, Jacquard card sequences, the printing of optical formulae, and for multi-impressions through carbon backed forms.

ENM can solve your problems by supplying high grade machines made to meet your special needs



ENGLISH NUMBERING MACHINES LIMITED

(Dept. 3b), Queensway, Enfield, Middlesex. Tel.: Howard 2611/5 Grams: Numgravco, Enfield



and it
still
leaves you
free
to talk...



FONADEK
REG. TRADE MARK

For the first time, you need not hold the phone. Your hands are FREE to write, type, refer to books and papers whilst you talk. You may get up, walk around to reference files with your receiver still on the Fonadek.

Enquiries to:—

FONADEK (BRANSON) LTD.
Dept. B.3. Vivian Road, Birmingham 17. Tel: HARborne 2267/6

7436

Build your Business with Bisley!

INDEX CABINET

With the incorporation of the "LIMPET LINK" a complete index system may be built as required in any multiple of cabinets. Instantly interlocking and as speedily rearranged. BUILD your index system with your BUSINESS

* your usual supplier does not stock BISLEY Equipment, write for list, and name and address of nearest distributor.
Telephone: Brookwood 2373/3131



F. C. BROWN, BISLEY





Security at Night for Your Premises

THE PROBLEM. Although industry spends Millions every year on Watchmen's Wages, it is still losing tens of Millions in burglary and pilferage.

THE REASON. The great majority of Watchmen have never been trained or even shown how to act as **effective** Night Guards.

THE REMEDY. At a very small fraction of the cost of your Watchman's Wages—and with very little time or effort—it is now possible to turn a completely untrained Watchman into a highly effective Night Guard.

The BLICK Watchman's Control System appeals not only to the large organisation which employs an efficient Chief Security Officer, **but also** to the smaller concern where the Watchman is supervised, in many cases, by the Time-Keeper. It appeals so strongly because :

- ★ *it is very moderately priced*
- ★ *it is extremely effective*
- ★ *training and control are so simple and automatic that they only take 3 minutes a day*

Write or phone today for full descriptive brochure and first-hand Evidence of the effectiveness of the system to :

BLICK TIME RECORDERS LTD.

96, Aldersgate Street, London, E.C.1.

Telephone: MONarch 6256/8



PROSPECT

survey and forecast of business conditions

1954—Grounds for Optimism

London, December 21, 1953

THE YEAR'S

HIGHLIGHTS

AND TRENDS

● The majority, but not all, of the signs point to 1954 being a year of fairly stable business conditions. This forecast is made in spite of the continuous expression of fears of an American recession. More of that later, but on the home front there are reasons for believing that the total level of business activity will be at least maintained.

● Autumn spending was hit by exceptionally mild weather. This affected sales of winter clothing and footwear, and also the early Christmas buying. In spite of these setbacks, total sales at the time of going to press have not been disappointing. The Board of Trade's index of sales of all types of merchandise by the large retailers rose between September and October by five points to 125. And by mid-December the fiduciary note issue had already been raised to £1,675 million, or £50 million above the previous record, to cover Christmas spending requirements.

● Another sign of strong business activity is the record peace-time volume of freight carried by British Railways in the four weeks to November 1. The total of 23.8 million tons was 150,000 tons more than in the four weeks to March 22, which was the previous best, and 655,000 tons greater than in the corresponding period last year. It should be borne in mind that the "tonnage of freight carried" is a business indicator which is unaffected by changing prices.

● No doubt in the early, pre-Budget months of 1954 sales of many durable goods will be adversely affected by anticipation of cuts in Purchase Tax in the Budget. However, this is an annual problem which has been kept well before the Chancellor's attention, and it is unlikely that any temporary setback will be allowed to assume major proportions. While some business men will be justified in making allowance for slow sales in the early months, good business could be missed by anticipating any long-term consequences of this seasonal slackening.

● Mr. Butler has presented two Budgets and has built up a reputation for taking a "soft", incentive line as opposed to the firmer policies of former post-war Chancellors. Their Budget surpluses—a form of compulsory saving—have been melted away by Mr. Butler, in favour of a policy of encouraging private saving. So far it appears that events have justified his policy, although nobody knows how far the improvement in Britain's position has been due to the incentive effects of the Butler policies, and how far it has been due to other circumstances, such as the slackening of Korean inflation and the movement of the terms of trade in favour of Britain.

● In the last financial year, 1952-3, personal saving was £382 million up on the previous year, and corporate saving was £278 million up. Since then industry has continued to be fairly liquid. Bank advances on October 21 were £93 million below the level a year earlier, in spite of the higher level of business activity. This

THE YEAR'S HIGHLIGHTS AND TRENDS (continued)

liquid position suggests that the total level of savings may be responding reasonably well to Mr. Butler's incentives, and he may feel tempted to present another "soft" Budget, with all that that means for business activity. The Bermuda declaration, with its talk of further extending and spreading the peak of defence spending, may also encourage Mr. Butler.

● The October industrial index figure of 127.8 was a record, being six per cent above the 1952 level and five per cent above the previous peak attained in 1951—this in spite of the fact that sales of some lines of engineering goods have been more difficult. Exports in November were £249 million, the highest level since March, 1952, and the November visible adverse balance of payments was £24 million, the lowest for three years. Coal output in the first week of December was the best for two years and the second best since Dunkirk. None of these look like signs of incipient recession.

● There are some factors favourable to an expansion of capital expenditure. Restrictions on private home-building have been further relaxed, more licences are being granted for factory building and for the first time since the war office-building is really getting under way. Also the Government's £50 million road-building programme, although small compared with needs, indicates one more direction in which there must surely be an expansion of activity. The plain truth is that the post-war economy was so heavily controlled that there is still room for business expansion as some of the remaining controls are removed or relaxed.

● In the United States the results of the McGraw-Hill survey of business investment plans for 1954 show only a five per cent fall from the record 1953 level. This evidence tends to moderate the pessimism over the possibility of a serious recession in America during 1954. Moreover, the quarterly survey made jointly by the Department of Commerce and the Securities and Exchange Commission reveals that planned investment expenditure in the first quarter of 1954 will be higher than in the same quarter of 1953. When it is recalled that tax cuts come into effect on January 1 and are bound to cause some stimulus to spending, the immediate outlook is certainly not cheerless.

● Early in the New Year the results will be eagerly awaited of the more detailed annual survey of business investment plans made by the Department of Commerce and the Securities and Exchange Commission. If this suggests the likelihood of a down-turn later in 1954, the Eisenhower Administration may not be slow, in an election year, to take steps to stimulate American consumer and business spending. The margin of seats between the two main political parties is so small that the politicians can hardly afford to ignore the prosperity problem.

● The big "if" about future British business prospects lies on the labour front. The unions grew accustomed to annual wage increases during the years of inflation. It is not easy to explain that now that prices have stabilized, wage increases can only cause more inflation and make the export situation more difficult. If a Conservative Government can win the confidence of Labour to make this point clear without a major industrial conflict, then the way ahead should not be without promise.

● Probably a certain amount of "softness" towards labour, in order to avoid major conflicts will result in an upward trend in business activity and prices. The ill effects of this on overseas trade will be to some extent, though perhaps not entirely, discounted by the fact that a similar process may also be taking place overseas. This is not the only country with a labour movement.

SALIENT FIGURES OF THE MONTH

Production continues to increase. The September index figure (8) was 9 points above that for September, 1952, and the provisional figure 127.8 for October establishes a new record.

Coal output in October was still below the level of a year previously, but by the first week in December coal production had reached the highest level for two years.

Unemployment in October (7) was 17,000 up on the September level, but this was a decrease of nearly 89,000 on October of the previous year, when the textile recession was not yet over.

Retail Price Index in November (32) was 140, the same as in the previous month and only two points above the level of a year earlier. Re the recent wage disputes, the weekly wage index (31) in October was 137, the same as in the previous month but six points above the level a year earlier.

Retail sales (25) were five points higher in October than in September, in spite of the effect of mild autumn weather on sales of clothing and footwear.

'BUSINESS' INDICES

1. Production ... 1948=100
2. Purchasing Power ... (do.)

MANPOWER

3. Total manufacturing industries ... thousands
4. Textiles ... (do.)
5. Distributive trades ... (do.)
6. Coal (on colliery books) ... (do.)
7. Registered unemployed (G.B.) ... (do.)

PRODUCTION

8. Index of prodn.: total, all inds. 1946=100
9. Coal (average weekly output) (thousand tons)
10. Gas available at gasworks (average weekly output) ... (million therms)
11. Electricity generated ... (million kWh)
12. Steel ingots and castings (average weekly output) ... (thousand tons)
13. Cotton yarn ... (million lb.)
14. Rayon yarn and staple fibre ... (do.)
15. Worsted yarn ... (do.)
16. Sulphuric acid ... (thousand tons)
17. Passenger cars (average weekly output)(do.)
18. Commercial vehicles (av. wkly. output)(do.)
19. Permanent houses completed ... (do.)

TRADE

20. Value of imports ... (£m)
21. Value of imports, Western Hemisphere (£m)
22. Value of exports ... (£m)
23. Value of exports, Western Hemisphere (£m)
24. Freight train traffic ... (thousand tons)
25. Retail sale index ... 1947=100

FINANCE

26. Currency in circulation ... (£m)
27. Deposits, London clearing banks ... (do.)
28. Provincial cheque clearings ... (£,000)
29. National savings, total outstanding ... (£m)
30. Gold and dollar reserves ... (do.)

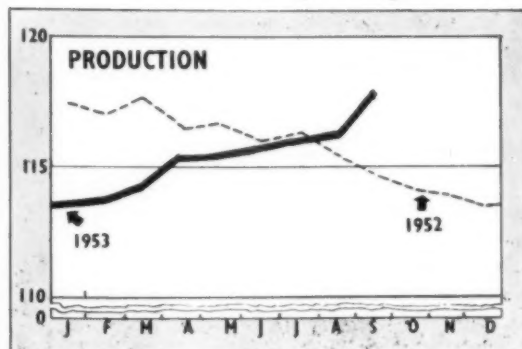
WAGES AND PRICES

31. Weekly wage rates ... 1947=100
32. Retail prices ... (do.)
33. Price indices of materials used in:
 - Non-food mfg. industry ... 1949=100
 - Mechanical engineering ... (do.)
 - Electrical machinery ... (do.)
 - Building and civil engineering ... (do.)
34. Import prices ... 1952=100
35. Export prices ... (do.)

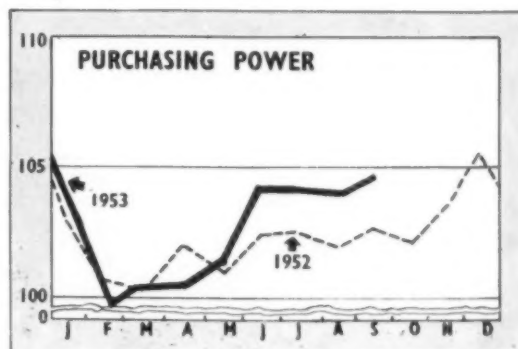
	Latest Month	Increase (+) or Decrease (-) on a Month Ago	Year Ago
1. Production	* 118.2	+ 0.8	+ 3.9
2. Purchasing Power	* 104.4	+ 0.4	+ 1.6
3. Total manufacturing industries	8,905	+ 53	+ 220
4. Textiles	1,002	+ 6	+ 74
5. Distributive trades	2,675	+ 15	+ 39
6. Coal (on colliery books)	711	— 3	— 8
7. Registered unemployed (G.B.)	309.0	+ 17.0	— 88.9
8. Index of prodn.: total, all inds.	* 125	+ 19	+ 9
9. Coal (average weekly output)	4,598	+ 172	— 24
10. Gas available at gasworks	52.6	+ 6.4	— 1.2
11. Electricity generated	5,828	+ 810	+ 302
12. Steel ingots and castings	† 363	+ 8	+ 18
13. Cotton yarn	17.0	+ 0.8	+ 2.8
14. Rayon yarn and staple fibre	38.45	+ 2.23	+ 10.03
15. Worsted yarn	* 20.27	+ 7.33	+ 3.12
16. Sulphuric acid	* 152.3	— 0.5	+ 36.9
17. Passenger cars	13.29	+ 0.43	+ 4.56
18. Commercial vehicles	5.44	+ 0.52	+ 0.19
19. Permanent houses completed	20.03	+ 1.02	+ 6.22
20. Value of imports	† 272.4	— 7.4	+ 10.6
21. Value of imports, Western Hemisphere	* 56.0	+ 7.9	+ 16.0
22. Value of exports	† 248.8	+ 11.9	+ 38.4
23. Value of exports, Western Hemisphere	* 30.0	— 2.3	+ 2.6
24. Freight train traffic	† 5.95	+ 0.23	+ 0.16
25. Retail sale index	125	+ 5	+ 8
26. Currency in circulation	1,475	— 5	+ 83
27. Deposits, London clearing banks	6,373	+ 53	+ 206
28. Provincial cheque clearings	696	+ 77	+ 86
29. National savings, total outstanding	* 5,975	+ 5	— 59
30. Gold and dollar reserves	900.	+ 12	+ 269
31. Weekly wage rates	137	Same	+ 6
32. Retail prices	† 140	Same	+ 2
33. Price indices of materials used in:			
Non-food mfg. industry	142.6	— 0.2	— 11.0
Mechanical engineering	144.9	+ 1.7	— 0.7
Electrical machinery	153.2	+ 3.2	— 13.4
Building and civil engineering	129.9	— 0.2	— 0.8
34. Import prices	87	Same	— 8
35. Export prices	97	Same	— 2

*September †November ‡Four weeks to 1st November, 1953.
All other figures refer to October.

'BUSINESS' INDICES (1948 = 100)



A twelve-month moving average of the Official Index of Industrial Production (Total: All Industries).



An unweighted index of currency in circulation with the public, total bank deposits, and total outstanding national savings.



This absorbing booklet describes a number of Case Histories that show how Industry today is applying our principle . . .

Put film to work for you

Here is a booklet that you cannot afford to miss. Explaining the advantages and describing the scope of film in industry, it tells the story of film at work in diverse organisations . . . shows how this instrument of infinite adaptability can save waste of time, of money and of opportunity. Write for your copy today.

Always abreast of the needs of modern Industry, the Industrial Service Division of G.B. Equipments Ltd. have prepared booklets that cover every application of film and visual aids in Industry. A fully experienced staff is at your disposal to give full and free advice. Write or 'phone for further information.

FILMS FOR INDUSTRY

A recent survey conducted by G.B. shows that many British industrialists are unaware of the wealth of available film material. Because of this, the Industrial Service Division of G.B. Equipments Ltd. have compiled the following booklets,

listing series of films and film strips which are available for industrial use and the many sources from which they can be obtained. We will be glad to send you all or any of these booklets. Please let us know the number(s) you require.



1 *The story and background of Britain and her Industries.*



2 *Manufacturing — Goods and Services.*



3 *Transport and Communications.*



4 *Engineering and Industry.*



5 *Building and Allied Trades.*



6 *Chemistry.*



7 *Business Practice and Factory Organisation.*



8 *Athletics and Sport.*

G.B. EQUIPMENTS LTD.

Industrial Service Division, Dept. B-154
Mortimer House, 37-41 Mortimer Street,
London, W.1. MUSeum 5432.
A Member of the British Optical & Precision
Engineers' Group.
Within the J. Arthur Rank Organisation.



PUT FILM TO WORK FOR YOU

Have you explored the potential of film in *your* organisation? This booklet shows how film can work for you by paving the way to increased output with analytical time and motion study; by recruiting and training new staff; by promoting sales; by furthering personnel and public relations. Please write for copy.



A Special 'BUSINESS' Survey

Home and Export Outlook for 1954

In this New Year issue, PROSPECT omits its month-by-month analysis of the home and export markets. Instead, it looks at what was achieved in 1953 and examines how it could be consolidated and built upon in 1954, how our shortcomings in 1953 will affect events in 1954 and the size of the effort which will be required from every manager and man if 1954 is to be another year of growing prosperity.

WORLD trade continued to expand in 1953. At the same time, the prices of many primary raw materials continued to fall whilst those of most manufactured goods remained almost steady. In these circumstances Britain, whose international economic function is to convert huge quantities of imported food and raw materials by the admixture of brains, skill, energy and some local raw materials into finished goods for export, managed to pay her way—but only just. Other countries, some less dependent on imports (the U.S.A. and Canada) and some more energetic and enterprising (Germany) did relatively better. They increased their share of international trade whilst Britain got a smaller slice of this huge cake.

Defence Burden

International political tension was not greatly eased in 1953. Britain's defence burden, therefore, remained heavy. Although in economic terms this represents a strain, it is also a valuable stimulant to business activity.

The United States maintained its much larger defence effort. This meant that American business activity, and consequently its import bill, was high. About one-fifth of American imports came from the United Kingdom and the overseas sterling area. For this and for a number of other reasons, the British gold and dollar reserve grew steadily. This made it possible to reduce or remove many of the physical restrictions and monetary controls that had bedevilled life in Britain since the war, or that had to be applied in the winter of 1951 when these same reserves were being used up at a most perilous rate.

Neither the slow growth of the gold and dollar reserves nor the steady rise of the index of production should be seen as evidence of satisfactory or permanent re-

covery. The gold and dollars lost since June, 1951 (when the reserves were at their post-war peak) have still not all been recovered—over £400 million worth of gold and dollars have still to be earned. Moreover, the high level of business activity in Britain has not come from successful export effort, but largely from expanding consumption at home. The situation at the turn of the year, then, is deceptive.

The Situation at Home

Two factors are mainly responsible for Britain's boomlet:

1 The "stimulus" provided by Mr. Butler's last budget in the form of tax reliefs. To the consumer these gave greater spending power, to the manufacturer they made the buying of new machinery somewhat more worthwhile.

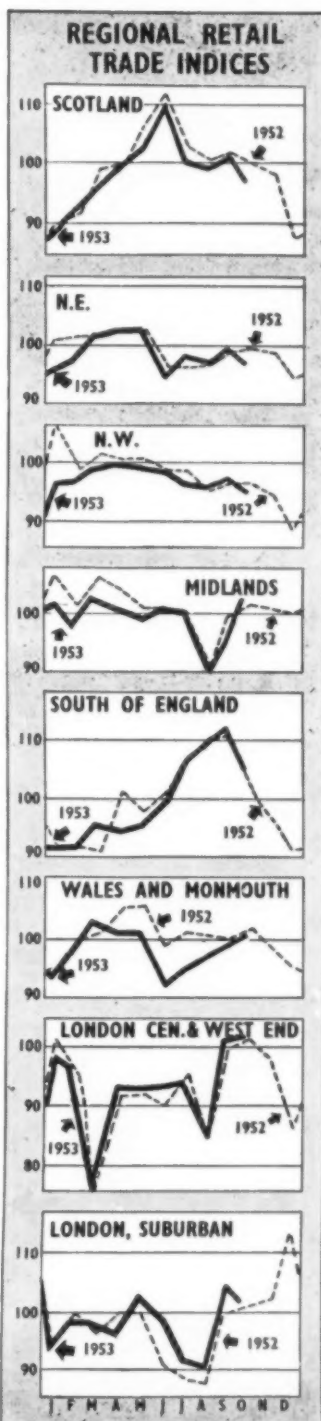
2 The Conservative government was pledged to build 300,000 more houses and flats. That promise has been kept. Consequently, local authorities and private individuals, through building societies, spent more money than ever on housebuilding and materials. The building industry's labour force is now much stronger than 12 months ago. Add to that increase the extra labour and materials used by the suppliers of the building industry, and there appears part of the explanation for the ground lost in export markets.

Altogether, industrial activity in 1953 was probably about three per cent higher than in 1952—and pos-

Continued on page 1x

What the Charts Show→

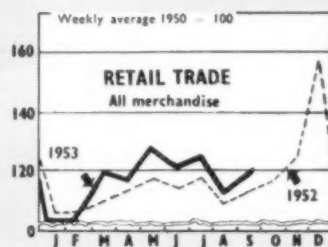
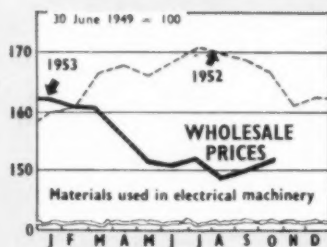
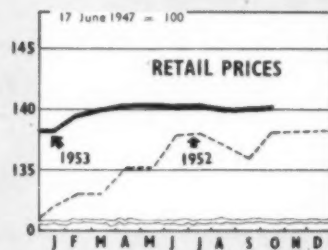
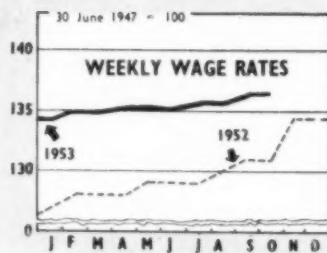
Indices in the charts show retail turnover in each region in non-food merchandise as a percentage of national average (=100) for the month. The charts are based on the Board of Trade retail sales indices.



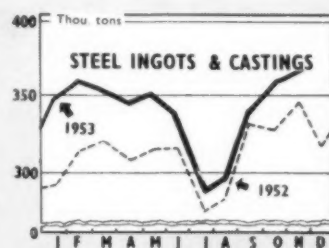
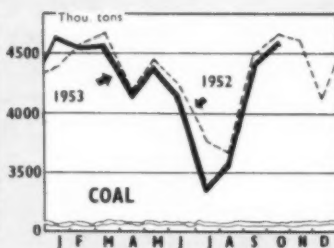
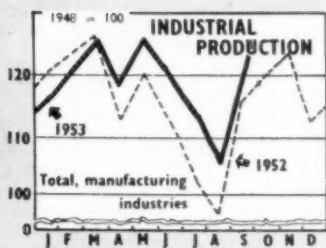
STATE OF THE NATION

From this comprehensive series of charts, covering the main economic factors affecting the state of the nation, the business man may gain a perspective of the situation governing his operations.

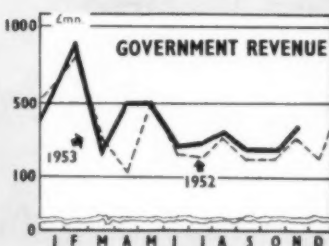
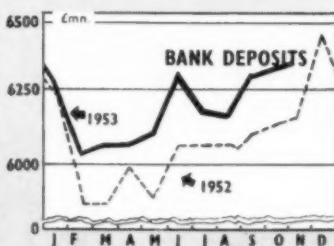
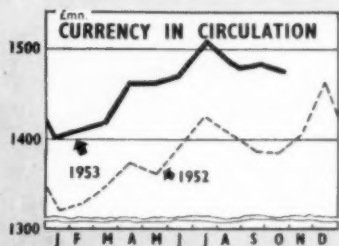
WAGES AND PRICES

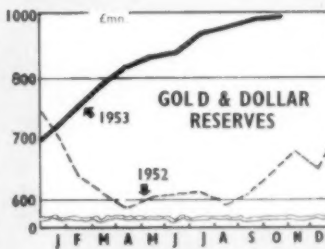
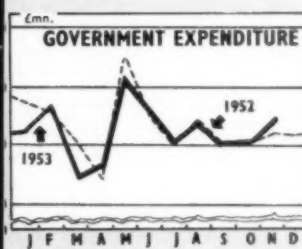
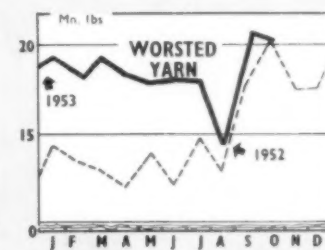
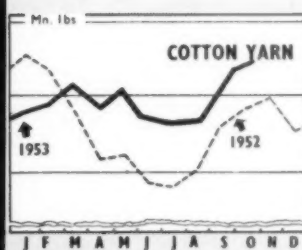
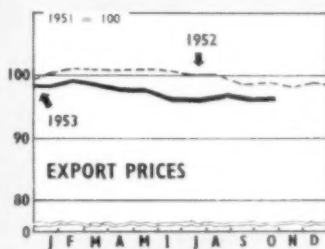
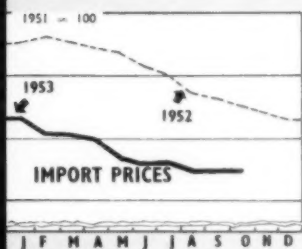
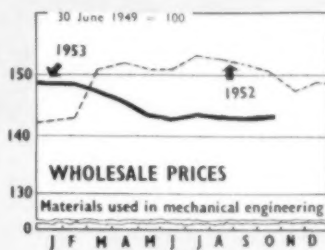
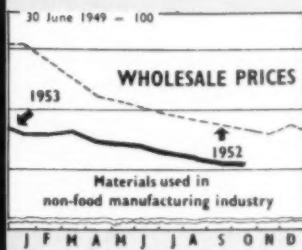


PRODUCTION

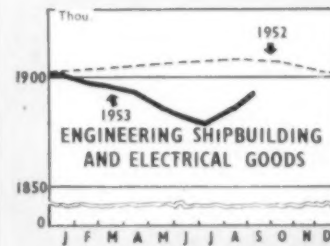
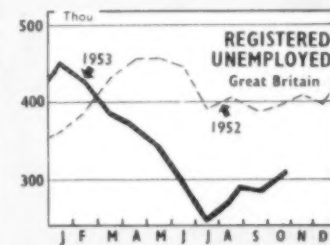
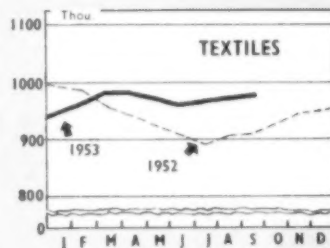
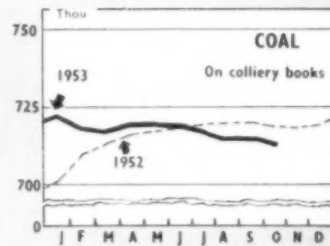
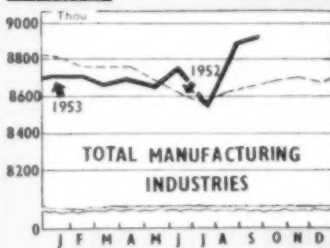


FINANCE





LABOUR





**With a hand
on the wheel
and an ear
to the ground**

Pension Schemes do not run themselves. Every human problem concerning employees — their engagement, promotion, departure, retirement or death — calls for adjustment in a pension scheme.

Pension Schemes do not modernise themselves. A 1939, or even 1945, Scheme may be very obsolete today.

NOBLE LOWNDES SCHEMES are up-to-the-minute when installed. They are permanently, carefully administered by experts. Every subsequent improvement in underwriting or fiscal conditions is automatically included as it becomes available.

Your enquiries concerning the adoption **or revision** of pension provisions will be dealt with personally by the Managing Director

The Noble Loundes Pension Service

38 LOWNDES STREET · LONDON · S.W.1 · TELEPHONE SLOANE 3465 (10 LINES)
3 NEWTON PLACE, GLASGOW, C.3 · 25 CROSS STREET, MANCHESTER, 2 · 9 TITHEBARN STREET, LIVERPOOL, 2
12 EASY ROW, BIRMINGHAM, 1 · 7 SOUTH PARADE, LEEDS, 1 · 21 COLLINGWOOD STREET, NEWCASTLE, 1
58 HOWARD STREET, BELFAST · 39 KILDARE STREET, DUBLIN · And at JOHANNESBURG and CAPETOWN

Associated Companies in New York, Chicago, Montreal and Los Angeles

HOME AND EXPORT OUTLOOK FOR 1954 (cont. from page v)

sibly even slightly higher than in 1951, the post-war record year. This increase in activity was widely spread. Steel makers and motor vehicle manufacturers set the pace and textiles maintained their progress after the 1952 slump. The tinplate industry in South Wales, which had been short of orders, also picked up. Only shipbuilding did not receive new orders in satisfactory volume. All this activity was reflected in low unemployment figures, in growing consumer spending and in healthy order books for most capital goods manufacturers.

Boom for Retailers

The Chancellor's stimulus and the Coronation combined to make 1953 a good year for most retailers, particularly the large ones in London. But the progressive reduction of food subsidies with the consequent rise in food prices diverted an ever-larger slice of consumers' disposal incomes to food purchases. Nevertheless, home sales of cars increased (a small-car price war developed in the autumn because of growing difficulties in export markets), and television set manufacturers have never known a year like 1953.

1953, when seen in perspective, will perhaps be best remembered as the year in which the British businessman regained much of his traditional freedom. The Government has largely withdrawn from State trading and consumption has been freed. Only large, high-priced cotton stocks left on its hands and some hitherto unsolved agricultural problems make it retain a conspicuous finger in "business". The consumers' freedom is almost complete—only cooking fats and house coal remain effectively rationed. The freeing of commodities was accompanied by welcome reductions in import licensing and there are happy prospects that the markets will be able to earn substantial invisible "exports."

Exchange Controls Go

There were also numerous relaxations of foreign exchange controls. The City of London is once again assuming its position as the world's financial centre. The complete convertibility of sterling, however, remains a wish—no one knows when it can be fulfilled.

But in one sphere a considerable measure of control remains. Though the Capital Issues Committee has been more liberal in recent months in its sanctioning of

capital outlays, large-scale investment is still channelled only into fields that have the approval of the Treasury.

In spite of these new freedoms, the progress made last year was more apparent than real. Another export drive cannot be far delayed, for Britain is not maintaining her relative position overseas. And major problems loom at home.

Fuel Problems

British industry grew great on abundant supplies of cheap coal, but coal is today in short supply and very dear. There is little doubt that if demand for coal persists in its present trend, there will be a shortage until atomic or some other source of energy becomes economic. It is clear also that coal prices will continue to go up. Though something has been done to make the country (industry and householders) conscious of the need to conserve fuel, there is no clear-cut fuel policy—unless the Government has decided to be so courageous politically as to allow coal to price itself relentlessly out of the market in order to put a premium on its efficient use.

Meanwhile, the lesson of 1953 for industrial users of coal, including even those who do not see it as a large item in their present cost-

ings, is that fuel efficiency can pay. Moreover, substantial capital outlay is not always required to effect fuel savings, and manufacturers of efficient heating equipment are on a good wicket. So are their suppliers.

Wages Pressure

Though wage rates have consistently lagged behind retail prices since the war, average weekly earnings in industry have kept ahead of prices. The bulk of the population has never been better off. Only pensioners, small traders, professional people and those who live on "unearned" income are worse off. Yet the pressure for higher wages persists and threatens to make itself felt, firstly in giving a twist to the inflationary spiral at home, secondly in pricing many British goods out of highly-competitive export markets, and ultimately in unemployment. Encouraged by increasing dividend payments, wage-earners seem to have abandoned all restraint. In these conditions, managements are seeking devices that will tie bigger wages to greater output per man—and there is some trade union support for this approach. 1954, however, is hardly likely to be an easy year in industrial relations.

Exports: Lost Ground to Make Up

TIME is running short. The Germans, the Japanese, the Americans and many others are energetically and intelligently addressing themselves to their export drives, but Britain is losing ground. Her exports fell five per cent between 1950 and 1952. If the provisional figures for exports in the first eleven months of 1953 are taken as a guide, exports and re-exports in 1953 will prove to be three to five per cent below the 1952 level, yet world trade as a whole rose by seven or eight per cent.

There are two kinds of obstacles to increasing Britain's exports. Firstly, there are those outside the control of exporters and even of the British Government. Individual markets may be closed or imports restricted for one or more reasons, such as these: the country concerned is short of sterling; it has fallen out with Britain politically; we do not want it to receive goods of strategic importance; it wants to protect its growing home industries. To counter such restriction of overseas markets by

government intervention, the British Government, through political and trade negotiations, must press relentlessly for greater freedom.

The other kind of hurdle to greater exports can only be cleared by British businessmen and managers through:

1. Taking advantage of each and every opening for business in the many countries that are ready and able to buy British.
2. Making sure that the goods offered for export are what are really wanted.
3. Being ready to take on new lines and to tackle new markets.
4. Practising good salesmanship: answering letters promptly in the language of the prospect, quoting in the measurements and currency of the prospect e.i.f. the overseas port.
5. Using all their energy and ingenuity to keep prices competitive.

There are still many thousands of potential exporters who have

PROSPECT

survey and forecast of business conditions

not even tried to export directly by their own efforts or indirectly through merchants. There are many thousands of actual exporters, including some merchants, whose export sales are very much smaller than what they could be because they lack the energy, salesmanship and/or knowledge to export. If a small fraction of the

money spent on product research and design were **invested** in acquiring the necessary knowledge of overseas markets and of the commercial and financial facilities of the City of London, and if this knowledge were acted upon with zest, there would be little to fear from the Germans, the Japanese or even the Americans.

However, these lines and similar goods will not sell themselves. Many have to be designed and made to stand up to the often tough physical conditions in the Commonwealth, and to handling by its largely semi-skilled labour.

In **Latin America**, despite many difficulties, there will continue to be worthwhile markets for British goods. Britain until recently was South America's second largest supplier after the United States; now Germany has succeeded in taking second place. Even if **Brazil's** credit is exhausted and **Argentina** refuses to give British goods a reasonable share of import licences and permits, there are other outlets in this huge continent. Venezuela, for example, is developing, on a somewhat smaller scale, like Canada. **Central America**, including British and American dependencies in the **Caribbean**, should not be overlooked.

Although the many markets in the **Middle East** and **North Africa** are overshadowed by political instability, Americans and Germans are not deterred from doing business. Selling by British exporters that is geared to the local business climate should have its reward.

Though little improvement can be expected in British exports to **Western Europe**, including **Scandinavia**, no energetic exporter should neglect these markets. Liberalization of trade is a watchword in Europe, and integration of the, in many ways complementary, economies is an ideal that provides business opportunities for those informed and energetic enough to grasp them.

(3) East-West Trade

The prospects of **East-West** trade are not unpromising. Mr. Malenkov and his régime are committed to improving the lot of the consumer in Russia and the East European satellite countries. Mao-Tse-Tung is committed to industrialize China at an even faster rate than his Soviet model. How much these two policies will mean to British businessmen is obscure, for a great deal depends on political rather than economic factors. But if there should come a substantial relaxation of tension between East and West, and with it the reduction or abandonment of the embargo on export behind the "iron curtain" of materials deemed to be of strategic importance, a large trade could well develop in both capital and consumer goods.

As an insurance, some businessmen are not only getting to know the appropriate trade channels, but

WORLD MARKETS

(1) North America

In the **United States**, many records were broken in 1953; yet there are signs that the steady, hitherto slight decline in economic activity since last spring will continue in 1954. So far consumer spending has increased steadily, yet retailers' and wholesalers' stocks have reached unprecedented heights. Many durable consumer goods and cars are now slow-moving lines. Defence expenditure is expected to drop in 1954, and the decline in business activity may consequently accelerate.

Two major uncertainties dominate the American economy and, therefore, that of the entire free world. Will the President try to balance the budget, and will the Randall Commission recommend the removal of many barriers to imports? British businessmen have cause to await anxiously Mr. Eisenhower's economic message to Congress. If the budget is to be balanced, they expect substantial drops in U.S. imports; on the other hand, if Government spending is maintained to keep the American industrial machine going at near capacity, and if the Randall report recommends the removal of import barriers, there will be plenty of scope for British exporters.

If American imports per head of British goods were only half those of Canada, there would be no dollar problem. A close study of what are successful lines and sales methods in Canada, all other things being equal, should help to exploit the vast potential in the U.S.A.

The **Canadian** market for British goods is vast, despite the comparatively small population. But a strong sentiment in favour of the old country alone will not sell them. Promotion, including representation, has to be expert, and what is promoted must be wanted. Canada's economic development proceeds fast. Machinery, transport and communication equipment will all find ready sales—if they are sold intelligently and if the servicing facilities are there.

Consumer goods, too, should find a ready market.

Many hundreds of thousands of American tourists come to Canada every year. The enterprising British businessman finds out where they go and then sells there small articles that can be taken back in the car. Certain British textiles are likely to suffer falls in sales, for Canada now has its own under-employed textile industry to protect. Not to be overlooked are the investment opportunities in Canada.

(2) Sterling Area

Vast development projects are in being and planned in the Commonwealth. They are on so large a scale that many firms in this country feel that their services are inadequate to exploit the undoubted opportunities. If the individual firms are too small to negotiate with world agencies like F.A.O., the International Bank and governments, they should make the effort to form or join an export group. Strength through co-operation will get export orders that the small firm cannot afford to get on its own. Joint representation and market research abroad, joint negotiation with the City and the British Government, shared expenses of overseas travelling, advertising and participation in exhibitions, can make possible the apparently impossible.

The **Australian** market is opening up again, **New Zealand** is expanding its economy, **India, Pakistan and Ceylon** are industrializing. **Central and West Africa** are on the brink of a transport revolution and **South Africa** has a vast development programme. All these countries can provide outlets for what Britain's factories can make well: prime movers of all kinds, machine tools, small tools, hand tools, agricultural and road-making machinery, textile machinery, railway equipment, bridges, vehicles, mechanical handling equipment, prefabricated houses, electrical machinery, radio and television equipment, aeroplanes, chemicals, fertilizers.

they are also thinking about product specifications. Some have been to Moscow and others are planning to go shortly. In the nineteen-thirties Russian orders did much to alleviate the stagnation and contraction of the

machine-tool industry. "Iron-curtain" orders may well help the cotton textile industry. But even if there is no material change in trade policy on this side of the Elbe, there are still sales to be made in unrestricted lines.

humble grade of supervisor has plenty of opportunity to make his unit (company, factory, office, shop, department, section) as efficient as it can be within the limiting factors that outside circumstances force on him.

1954: Action for Management

THE practical economist has the job of relating the individual efforts of businessmen to the needs of the economy as a whole. Like the doctor or the lawyer, he often fails to agree with his colleagues, and he is often wrong. Yet, like the doctor and the lawyer, he can do no more than state his professional opinion and give his "best advice." The businessman must make his own decisions.

There are three possible determinants of the climate in which the businessman will operate in 1954:

1 A minor American recession could bring about in this country another of those balance-of-payments crises to which we have grown accustomed. This could mean further devaluation of the pound sterling, import cuts, some unemployment and a fall in business activity.

However, if a minor recession came in the United States, common sense and experience of past "down-turns" should be sufficient to bring counter measures into being which would, within a reasonable time, restore confidence to the American and the free world's economies. Unfortunately the American Administration, from the President downwards, cannot do much, even in a crisis, without the express consent of Congress. As it might take a good deal of time to persuade a Republican Congress of the wisdom of Government spending on anti-recession projects like the famous Tennessee Valley scheme, it is feared that a minor recession could grow into a sizeable slump before effective counter action were authorised, let alone taken. If such a slump were to develop it would be very difficult for the British Government to take steps which were adequate to insulate this country from a decline of employment and business activity.

2 The gold reserves of the U.S.S.R., which Stalin looked on as the last reserve and on which his successors are now beginning to draw to provide sterling, might be temptingly placed within reach of Britain and other West Euro-

pean countries. Russian gold in plenty as a counter to a grievous dollar shortage (the first result of an American recession), provided it were made politically acceptable, could ameliorate depressed conditions here considerably.

This is not the place to discuss the political implications of such a situation; the possibility is mentioned here only to show that an American slump need not make businessmen lose their heads, as many did nearly 25 years ago. Confidence in tomorrow, expressed by the businessman in willingness to buy new and more efficient machines, equipment and buildings (however thin the order book) is the best cure for a business depression. What is more, re-equipment, rationalization and redeployment are cheaper and easier in a recession or slump—a simple truth worth remembering.

3 The two types of business climate described above are not so likely as an uneasy, but nevertheless fairly prosperous status quo.

What is there, then, that the individual business firm can do to further its operations in 1954?

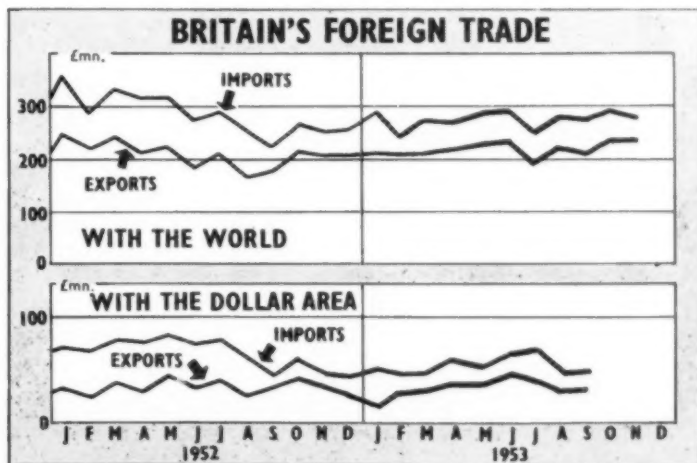
Firstly, every manager from the managing director to the most

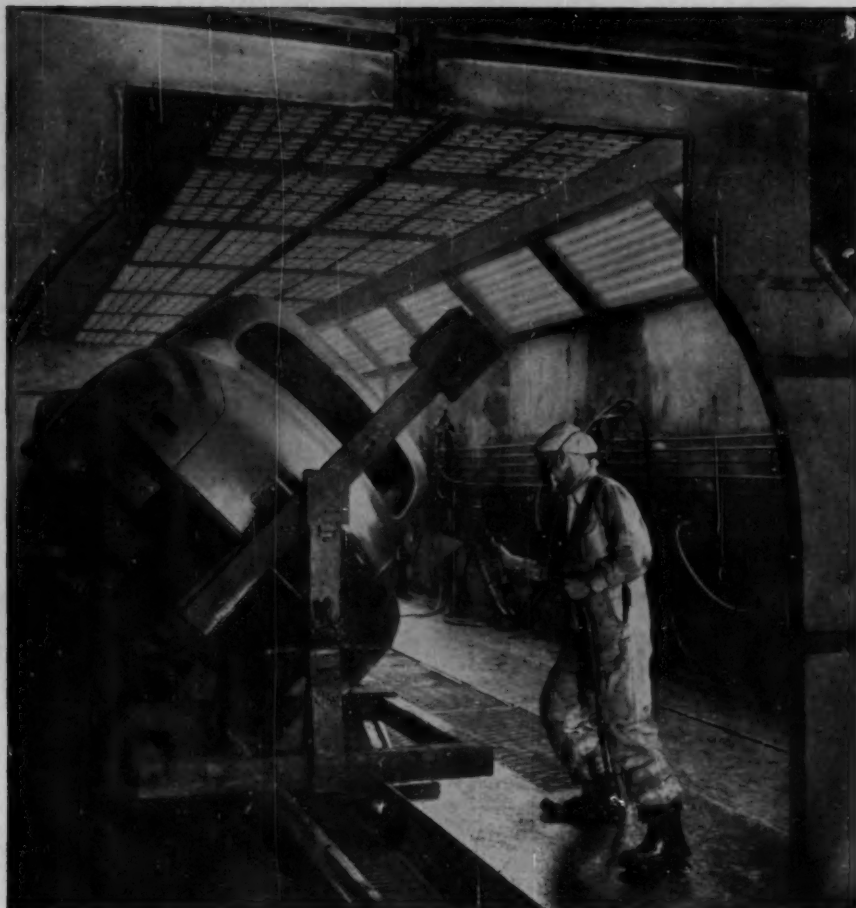
Secondly, every businessman can make the most of given opportunities. Far too many executives of all grades, including the man at the top, do not know what their opportunities are. Only a systematic study of the economic climate—of demand, of outlets and of contacts at home and abroad—will ensure that no opportunities are missed.

Thirdly, every manager can review his attitude to his subordinates (and his superiors). Today, when there is full employment, the manager who wants the best possible results from his men must "manage" them—that is, lead them. He can no longer rule them by fear of the sack. This means that he must ask himself from time to time about the relations with each member of the team he is there to lead. Good relations between management and men can not only make jobs more worthwhile but more profitable—for the men as well.

Lastly, the businessman who puts all he has into his working day should take pride in his effort and in his achievement.

The business man cranks up the economy, he is the driving force that initiates the process from which other people, including the professional classes, prosper. Let 1954 be a year of well-earned progress for him.





Rover Car Factory, Solihull. High intensity lighting in a body spray tunnel by fluorescent lamps in a glazed enclosure.

Tailored for the job

The lighting of many processes is vital to the smooth and rapid flow of work and to the quality of the finished product. For example, poor lighting could make a spray tunnel into a bottleneck — each job taking a little too long, a little portion missed, a return to the spray line — and so the whole production line marks time. Whatever form it takes, good lighting not only helps to provide a satisfactory working environment but is an active production tool.

Fluorescent lighting is as good as daylight — only more consistent. It is efficient; it is economical; and it is *flexible*. You can 'tailor' it, easily and exactly, to the special requirements of production at all stages.

HOW TO GET MORE INFORMATION

Your Electricity Board will be glad to advise you on how to use electricity to greater advantage — to save time, money, and materials. The new Electricity and Productivity series of books includes one on lighting — "Lighting in Industry". Copies can be obtained, price 9/- post free, from E.D.A., 2 Savoy Hill, London, W.C.2, or from your Area Electricity Board.

Electricity for **PRODUCTIVITY**

Issued by the British Electrical Development Association

This illustrates a point—



Do you know that—

IN A SHORT WHILE

the “permanent” offices in this photograph—

- could be dismantled and re-erected elsewhere
- could be moved round and made into a different shape
- could be altered in size
- and yet—the partitions would still retain their permanent appearance and remain an integral part of the office building

That's the beauty of

Art Metal
Sectional

PARTITIONS

Please send to-day for a copy
of Catalogue No. 605.



Telephone: SLOane 5201.

Telegrams: “Olivevef, So-
west, London.”

ART METAL CONSTRUCTION COMPANY
201, BUCKINGHAM PALACE ROAD, LONDON, S.W.1.

**SPEED
and ECONOMY
in TRANSPORTATION!**



Dart Pneumatic Despatch Tubes

For Inter-Departmental
Transmission of Mail Orders, Records,
Invoices, Messages, etc.
The Dart Pneumatic Tube System transmits
documents at 30ft. per second, linking
up every department and floor—
in Factories, Warehouses, Offices, etc.

Cash Centralization
in Modern Stores.
Counter Terminal
Fitting.



SPC

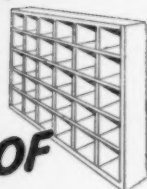
DART CASH CARRIER

COMPANY LIMITED, EST. 1919.

CAMPBELL ROAD · STOKE-ON-TRENT Phone: 44317



**IT MARKS
ON ANY SURFACE
IT'S INDELIBLE
IT'S WATERPROOF
IT'S QUICK DRYING
& FADE RESISTANT
IT'S**



Flo-master

THE BRITISH MADE

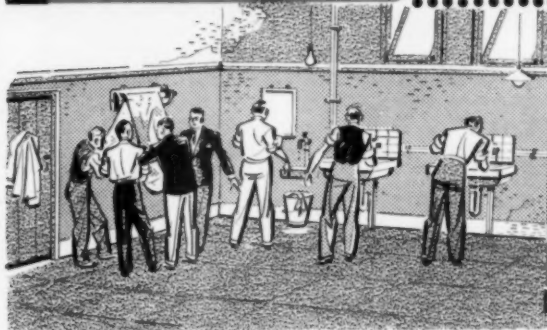
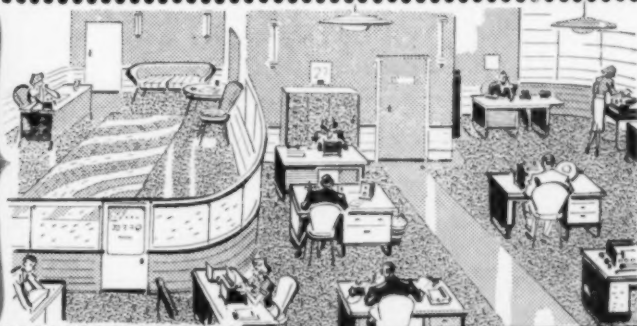
FOUNT^NBRUSH

**Saves time
Saves money
DOES A BETTER
JOB!**

Send for illustrated booklet

CUSHMAN & DENISON CO., LTD.
Dept. G, 124 Vassall Road, London, S.W.9.
Telephone: RELiance 4172

**This looked an
up-to-date
business...**



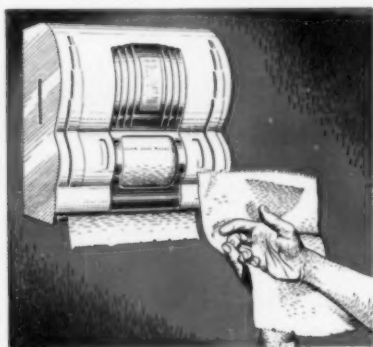
**until you
saw the
washroom**

Yes, it had modern assembly lines, efficient accounting systems, but one thing had been neglected—the washrooms. Every time workers or office staff used them they ran the risk of infection from dirty roller towels. It was a definite encouragement to absenteeism. A brake on efficiency.

Are your washrooms all that they might be? Wouldn't they be bettered by Harcraft Paper Towels, which combine maximum absorbency with unequalled wet strength. Towels obtained from a controlled delivery container that eliminates waste. Towels of better quality paper . . . softer . . . more absorbent . . . and much much stronger.

A representative will be pleased to demonstrate, and advise you as to your needs. It will place you under no obligation. It *could* save you time, money and trouble.

Ask for our terms for free cabinets



**HARCRAFT LTD · ESSEX ROAD · ACTON
LONDON · W3**

Telephone : Acorn 3311

JANUARY, 1954





**In a small office
switch one machine
to all jobs**

**In a large office
switch all machines
to one job**



...That's Sensimatic* Accounting

Out with office delays, posting "peaks," *overtime*—in with *Sensimatic* control over the production of accounts! A small firm may need only *one* Burroughs Sensimatic Accounting Machine to handle all its different routines. The large organization, which can switch every Sensimatic simultaneously to one type of work, will certainly reduce the size of its machine installation.

The Sensimatic's endless versatility originates in the Sensimatic control unit—which directs this unique machine through any *four* different posting operations in any combination. There's no limit to the number of control units you can use on one machine.

Call Burroughs about the Sensimatic now. Five versions are obtainable (giving as many registers, or combinations

of registers, as you need), and you'll be surprised at the low cost.

Burroughs Adding Machine Limited, Avon House, 356-366 Oxford Street, London, W.1. Sales and Service Offices in principal cities.

* WHY
'SENSIMATIC'?



This is the sense-plate of the Sensimatic, which guides the machine automatically through every mathematical function and carriage-movement of any four posting operations. Turn the selector switch and you're on (say) Accounts Receivable; another quarter turn and the machine's set for Stock Records; and so on.

**For expert advice on business figuring
call in **B**urroughs**

The March of Business

MORE DOUBLE SHIFTS?

AS competition becomes keener, further methods of reducing costs will have to be considered in many industries. It looks as if double shifts will become more common. Col. W. A. Grierson, Lancashire cotton master, says that he did not have any difficulty with the trade union in introducing double shift work into his own works. He estimates that double shifts will save the cotton industry, and other industries where it is already used abroad about £120,000,000 in capital investment and in electricity costs during the next five or six years.

Hitherto the attitude of the unions has been the chief stumbling block to double shift work in many cases. Naturally the chief objection comes from the wives who fear the upset of home life. A survey by BUSINESS some years ago showed that the objection was chiefly to the rotation of shifts, not to the permanent night shift.

In certain industries like newspaper and periodical printing and a few chemical processes, night shifts are inevitable. Here the experience is that insomnia and domestic upset caused during the first weeks do not last and that the workers in many cases eventually prefer the new hours to the old. Obviously a night shift enables men to get more fresh air, see more football in winter, spend more time in the garden in summer. The one medical problem is to convince the younger people of all grades that they must spend eight hours of the 24 in bed.

★ ★ ★

Significant (1)

THE Queen and the Duke of Edinburgh are "writing-home" to the prince and princess on tape recordings . . .

★ ★ ★

ENLARGING THE JOB

ARE we overdoing the effort to save steps and standardize jobs in the office? Recent experiments by the Detroit Edison Company suggest this. By

making their clerical jobs rather more than less complicated and reversing the trend towards assembly-line methods, they have reduced office costs. Volume of output has increased by 5 per cent; overtime is under half of last year's figure; absenteeism has dropped by 10-15 per cent.

If time and motion study shows that a girl must leave her desk six times a day to walk 20 feet to put an item in the file, says the official responsible at D.E.C., the tendency is to put the file next to her desk, or limit the trips to one a day, or let a messenger-boy do it. But these trips to the file may be the break in monotony the girl needs to make her job more interesting. Without them she may waste the time saved in a longer relief period, in daydreaming, or even in decreased production through work fatigue.

The company enlarged supervisory jobs to the extent of allowing first-line supervisors to hire their own staff, prepare their

The Editor, the Advertisement Director and the staff of BUSINESS wish all their readers and advertisers happiness and prosperity in the New Year.

own annual budget, make whatever procedural changes they deemed necessary within their own groups, handle complaints and grievances, recommend wage adjustments, arrange vacation schedules, etc. These supervisors do little or no work. Supervision is a full-time job. These girls are now part of the department-management team. Obviously these job changes mean

higher wages for the girls in many cases. But money is still being saved because it was found unnecessary to take on additional staff needed before the changes were made.

Job enlargement, says the company, is the most effective approach in relieving job fatigue in the office. This is going to make many of us look hard at our "model offices."

★ ★ ★

Significant (2)

RETIREMENT at 60 or 65 "must become the exception rather than the rule," says expert Dr. Trevor H. Howell, when science finds a cure for cancer and the means of reducing high blood pressure. Most people will then pass into the eighties as a matter of course . . .

★ ★ ★

ACTION ON P.T. REPORTS

HAS anything happened as a result of the visits to America of British productivity teams? The question is often asked and not always satisfactorily answered. The Association of British Chemical Manufacturers, however, has done an impressive job in seeing that the report of the Heavy Chemical Industry is read and acted upon. Nine thousand copies have been issued by various authorities. A series of meetings was held at Bristol, Birmingham, Manchester and York. To these, every interested firm in the area was invited and over 1,100 senior executives came along. Members of the team were present to answer questions.

At each area meeting it was also agreed that a local committee be set up to deal with any matters arising from the report. A number of these committees are now functioning. Finally, the report has been condensed in pamphlet form and re-written in popular language, attractively

Next Month-

Design Hints for Smaller Firms

Help for medium and smaller firms in solving their problems of industrial design will be given in a special article in next month's issue of BUSINESS. The article is based on a series of interviews by BUSINESS staff with firms which have built success on an enlightened policy of industrial design. There will be numerous pictures of sales-earning designs. Other practical features of the February issue will include the second article on "How to Use Incentives to Cut Costs".

This month's cover picture highlights a vital problem of 1954—Britain's need to export more. A Kodachrome by A. E. J. Grinyer, it shows the 26,300-ton Empress of Scotland, flagship of the Canadian Pacific Fleet.



That's only half the story —

**The Emidicta provides a
THREE-IN-ONE office system**

**These are the facts
which make the Emidicta
outstanding:**

- Remote controls, Repeat, Stop/Start provides effortless operation.
- Quick visual indexing.
- On Office Model, playback through inbuilt loudspeaker, microphone or earphones (single or double types).
- Up to thirty minutes transcription on a single disc.

WITH AN INEXPENSIVE ATTACHMENT THE EMIDICTA WILL:

- Record telephone messages or dictation over house or G.P.O. lines.



*Illustrated right: Standard Office Model.
Portable Emidictas (Mains and Battery-Spring) also available.*

Emidicta

COMPLETE DICTATION SYSTEM

Call and inspect the Emidicta Dictation System at:

E.M.I. SALES & SERVICE LTD. (Emidicta Div.),

Dept. 4a, 363-367 Oxford St., London, W.1. Tel.: Mayfair 8597. Grosvenor 7127/8.

NOW OPEN

Emidicta Showrooms and Offices and
Emidicta Advisory Bureau of Consultants at E.M.I. Sales and Service
(Emidicta Div.) Regent House,
Cannon Street,

MANCHESTER

Tel. Deansgate 2315.

illustrated. This pamphlet is now in the press and it will reach all levels in the factory. A very successful two-day course was also organized.

★ ★ ★

Significant (3)

OFFICE machinery exports reached record level of £1,225,000 in October.

★ ★ ★

SPOKEN COMMUNICATION

WHILE some accountants go into the industrial consultancy field, the industrial consultant continues to expand his services in fresh directions. One leading service is running a 3½-weeks course on works study next year. Each course will be limited to 10 students and the work will be intensive.

An unusual feature of this course (which includes basic training in time and motion study, the planning of apposite work studies and the use of work study by management) is a series of five sessions on communication. In these sessions each student will be helped to think more clearly and to express himself better. Too many courses give young executives and senior foremen useful facts about management and time and motion study but overlook the fact that, unless the student knows how to communicate his knowledge, his efforts will probably be largely wasted.

★ ★ ★

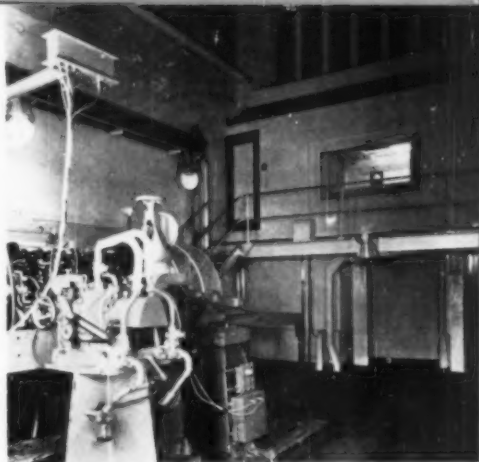
Significant (4)

UNDER a new type of pension scheme, one company are offering "with profit" bonuses. The bonuses can be used to reduce the cost of pensions or to increase their amount, or for arranging priority for special cases, or to level out annual payment...

ACCOUNTANT AS "DOCTOR"

THE function of the accountant in business is changing rapidly. In many cases he is becoming a "business doctor." Some accountants are already competing on level terms with the ablest industrial consultants. Pure accountancy is merely the beginning of their service to certain

People Products Places



FOR TESTING JETS—Inside the new jet-engine testing plant at the East Kilbride works of Rolls Royce. Main contractors for this new testing plant were Heenan & Froude, Ltd., who have already supplied similar but smaller equipment to the Standard Motor Company and D. Napier & Son, Ltd. The picture shows an Avon engine on a Heenan cradle.



TO DIRECT SALES—The newly-created post of sales manager of the Burroughs Corporation's international activity has been filled by Edward G. Wallace. Mr. Wallace will be responsible for directing sales organization in the international field and also sales through dealers. He joined Burroughs as a junior sales representative in Sydney, Australia in 1936 and became manager of the New Zealand organization in 1949.



JOINS STENNERS' BOARD—New member of the board of Stenners of Tiverton, Ltd., is 43-year-old Mark R. Reeve. Mr. Reeve after being called to the bar in 1933, served two years with a textile firm and then transferred to the steel industry where for many years he was with Accles & Pollock, Ltd. In 1948 he was appointed joint managing director of the latter firm, relinquishing this position on joining Stenners of Tiverton.

P.P.P. Continued ▶

A GOOD RESOLUTION



Invoices, Purchase Orders, Material Control Forms — in fact, wherever the problem is one of producing the typed forms essential to business, it may pay you to find out why more and more firms are turning to "Econoset" Continuous Stationery and the "Econojet" Typewriter Attachment.

Trained Representatives are available to assist and advise you — they are at your disposal free of obligation. Simply cut out and attach to your letter-heading the portion below and post.

Please ask your Representative to call	
Mr.	
and see Mrs.	
Miss	
on (date)	at
PETTY AND SONS LIMITED Whitehall Printeries, Leeds 12 Telephone 32341	



Econojet

Econoset

clients. They now cover costing practice, work out standard costing formulae, supply some form of budgetary control.

Nor do some clients stop even there. The managing director may ask whether his accountants can help first in assessing optimum output from certain machines and then in starting the drive whereby output may eventually be increased. Thence it is but a step for a director to ask for help in forecasting the direction of his market in the coming twelve months.

In this case, the accountant is really asked to be a market research worker, a sales controller and a prophet rolled into one. Many accountants wisely call a halt to their labours here. Some of the most enterprising firms, however, are now arranging to supply market research and business trends services to some of their clients.

One worry for some of the accountants is their inability to advertise their now much-expanded and more expensively maintained services owing to the ban on such practice by the professional bodies. The picture of one's cautious old accountant spending a sleepless night listening to the rumbling of his *own* overheads has a pleasant irony.

★ ★ ★

Significant (5)

NEWLY-OPENED Communication Research Centre at University College, London, will begin with public lectures for industrial executives and others . . .

★ ★ ★

MORE CREDIT INSURANCE

INSURANCE is becoming an increasingly important branch of business management. Many of the large American concerns have their own insurance managers. The American Management Association holds regular conferences for these executives.

In Britain, the latest form of insurance to become popular is the underwriting of credit risks. Export insurance has, of course, been taken care of for many years by the Export Credits Guarantee Department. But since the war insurance of domestic credit risks has expanded surprisingly. A specialist company formed for the purpose have the backing of a number of large insurance companies. Today as

People Products Places

NORTH EAST B.E.E.—The Lord Mayor of Newcastle, Alderman William McKeag, admires one of the machines on the National stand at the recent Newcastle Business Efficiency Exhibition. Alderman McKeag, who opened the exhibition, has on his left in the photograph Gordon Sloan, newly-elected president of the Office Appliance and Business Equipment Trades Association.



TRANSFERS TO AUSTRALIA—

After being director and manager of sales since 1947 of the International Harvester Co. of Great Britain, Ltd., J. M. Burdett has now been appointed director of sales for the company's Australian affiliate. In America, Mr. Burdett had the job of reshaping the sales and distributive organization of the British company to suit post-war conditions. His success may be gauged by the steady growth of the business from approximately £2½ million in 1947 to £7½ million in 1953.



HAWKER APPOINTMENT—Organizational changes in the Hawker Aircraft Co. have resulted in the appointment as Managing Director of the Kingston-on-Thames and Blackpool factories of Augustus N. Spriggs, O.B.E., M.I.P.E. Mr. Spriggs has worked his way right through the organization, having started with Sopwith Aviation, forerunner of Hawkers. In 1920, he joined the H.C. Hawker Engineering Co., where he worked in the toolroom, later becoming foreman. After holding a number of other positions in the company, he became works director in 1945 and general manager in 1951.



series **'E. N.'**

**A new range of ADDING MACHINES and
SMALL OFFICE BOOK-KEEPING MACHINES**

(standard models available for immediate delivery)

The FEATURES that make the difference . . . Automatic Debit and Credit Balances;
Automatic Grand Totals and Sub-Totals; Self-printing Noughts; Automatic Spacing;
Automatic Punctuation and Colour Change (Red and Black);
No Levers; Fingertip Control.

THE NATIONAL CASH REGISTER COMPANY LTD.

Offices: LONDON AND ALL PRINCIPAL CENTRES · Factories at DUNDEE, SCOTLAND

MAKERS OF THE FAMOUS 'CLASS 31' DIRECT ENTRY ACCOUNTING MACHINE

much domestic as export business is being written. Last year, the amount covered by domestic policies rose to around £630,000,000.

Policies can cover any risk from insolvency, whether virtual or factual, of the customer. In this case "insolvency" may cover failure by the buyer to pay the amount within 90 days of the date due, called "protracted default." Percentage of loss paid out varies from 75-85 per cent. The standard policy covers the whole turnover. Rates naturally vary with the nature of the risk. They tend to swing between 3s. 4d. and 10s. per £100 of insured turnover.

Letters

Congratulations

The Editor "Business."
SIR,

May I congratulate you upon your article "How to Cut Your Buying Costs" which appears in the November issue of BUSINESS. This important field is one inclined to be very much neglected in management literature and it is all the more refreshing to find the subject so well handled.

From the knowledge which exists within this Association I can confirm that the list of a buyer's functional responsibilities contained in your article is quite typical and by no means confined to one firm.

I question, however, the implication that there is a shortage of good buyers with sufficient experience to grapple with the problems which the change to a buyer's market have brought. Although, as you say, buying conditions during and since the war were very different from those prevailing today, nevertheless, they did serve to show management the importance of their supply services and to encourage them to appoint the right men to be responsible for them.

In addition, through the Education Scheme which has been developed by this Association since the war, young men are coming forward in ever growing numbers with the sound training in purchasing methods and procedures, which is necessary to enable them to discharge the increased responsibilities now facing the buying function.

Yours faithfully,

J. R. BLINCH,

Secretary,

Purchasing Officers' Association,
146A, Queen Victoria St., E.C.4.

JANUARY, 1954

People Products Places



WISHING ?—Sir Charles Colston, C.B.E., M.C., D.C.M., chairman and managing director of Hoover, Ltd., stirs the pudding which will be on the Christmas menu in the restaurant of the firm's factory at Perivale, Middlesex.



WELCOME HOME—After completing two years' voluntary service with the Ministry of Supply as Director General of Electronics Production, N. C. Robertson, M.B.E., F.R.S.A., A.I.E.E., M.B.R.I.R.E., M.I.P.E., has now resumed his civilian duties as Deputy Managing Director of E. K. Cole, Ltd. He is seen here being welcomed back by E. K. Cole (right) chairman of the company, in the presence of a fellow-director, E. B. Willcocks.



VINYL RESIN PLANT—The second phase of Bakelite, Ltd.'s, works at Aycliffe, Co. Durham, has now been completed. This is the new resin plant which occupies part of a 47-acre site and is designed to produce different types of polyvinyl and copolymer resins. The resins produced are either converted on the site into moulding or extrusion compounds or sheet, or despatched to customers to do their own conversion.

underwood's back!



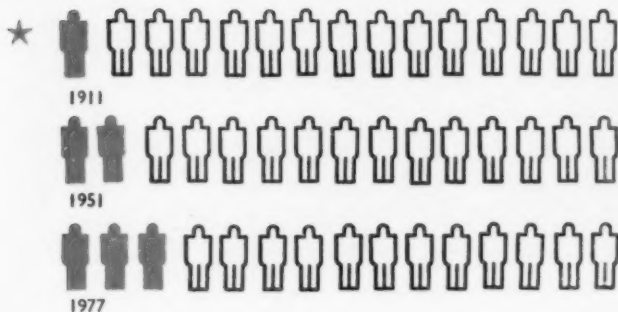
. . . with all its world famous,
time-tested characteristics, plus the
most up-to-date developments . . . for
**MAXIMUM SPEED, EFFICIENCY
AND TYPING COMFORT**

Write or phone

UNDERWOOD BUSINESS MACHINES LTD.

4-12 New Oxford St., London W.C.1. (CHAncery 3131)

or our nearest Branch for free trial in your own office



How to Make the Most of Older Workers

By PETER SPOONER

IN ten years, the population's 18 to 40 age group will have shrunk by about six per cent. There will be nearly 300,000 fewer young men and nearly 450,000 fewer young women than there are now. These figures help to put the much-publicized problem of the "older worker" into its true perspective.

Skilled labour is already scarce. During the next decade the competition for young labour, with the essential services taking a proportionally larger share, will obviously become intense. At the same time, production will have to keep pace with the steady growth of the population as a whole.

Numerically, of course, the scarcity of young workers will be offset by a 20 per cent increase in the over-50 age groups, and by the fact that more elderly people than ever before will be fit and willing to work. But numbers are not, in themselves, the answer to labour difficulties. The real problem of the older worker is how to make the most effective use of his indisputable qualities—his skill, experience and reliability—in a manner which enables equally effective use to be made of all available manpower.

This statement does not over-

As a symbol of a vast social problem, the older worker has received much publicity recently. This article gives him the status to which he is entitled—the man whose skill and experience can offset a serious scarcity of young labour during the next decade. It describes, too, how a number of firms are meeting an important challenge by making the most effective use of older workers.

look the immense social and moral issues which the recent White Paper has emphasized, and which has been discussed on several occasions in *BUSINESS*. However the problem is approached, its solution depends on one thing: the employment of individual workers in jobs which make full use of their skill without subjecting them to undue strains and hazards. A significant point is that constructive efforts to employ older people as efficiently as possible invariably spring from a genuine desire to look after the interests of long-service employees.

No attempt is being made to over-dramatize the problem by creating difficulties where none exists. Older people—including 650,000 men over 65—already represent a large proportion of the national labour force, and

most of them are employed well. Here, at least, no revolutionary changes are needed. But equally significant is the number of older people that industry is failing to use effectively.

Many thousands of retired men could and would work if they had the chance. The too-old-at-40 bogey is still remarkably active. Among the over-50, the incidence of unemployment is twice as high as among the population as a whole, and the duration of unemployment in individual cases is much longer.

Apart from the persistence of out-dated attitudes towards age and employment, there are several reasons why so much valuable manpower is being wasted. None of the difficulties involved is insurmountable. Insurance companies are ready to adjust the terms of pension

★PROPORTION OF OLDER PEOPLE in the population (red figures) is growing: a chart from the Ministry of Labour booklet "Age and Employment".

schemes which set artificial barriers against the engagement of older people. "Blocked" promotions can be circumvented by persuading supervisors to accept subordinate positions after passing minimum pensionable age. The danger of creating an unbalanced age structure in a company can be overcome by using elderly skilled men to train youngsters.

But even where these difficulties are resolved satisfactorily, the fundamental problem remains: how to make the best use of older workers within the normal framework of a particular business.

One fact must be borne in mind. The age at which ability and output start to decline depends on several factors, including the worker's physical and mental state, the type of work and the working conditions. In other words, each case has to be considered individually. With labour scarce, management cannot afford to reject a man—or force him to retire—just because he does not meet in full the requirements of one job in an inflexible employment programme.

This article describes how a number of firms are tackling the problem as it arises in their own organizations. Their methods are in no sense revolutionary, but

they represent those principles of good management on which the full employment of older people undoubtedly depends. And, of course, they can be developed in other businesses.

Of particular interest are the methods adopted by The Butterley Company, Ltd., Butterley, Derbyshire, whose activities include many types of heavy engineering; and by Elliott Brothers (London) Ltd., electrical and mechanical engineers. Both are old-established companies (Butterleys were founded in 1790 and Elliotts in 1800) and both have a remarkably large number of long-service employees.

At Butterleys' main works, a progressive policy towards older workers is linked with a progressive apprentice training scheme. During all stages of his practical training, which follows three months at technical school, each apprentice is teamed with a skilled man, who is paid in full for both his own and the apprentice's output. And Butterleys have found that their older workers make by far the best teachers.

The engineering works and the company's nearby forge and rolling mill at Codnor Park, Nottinghamshire, employ about 150 men over 65. This represents nearly 11 per cent of the labour force, three times the average for all

industries. No man is sacked just because he is too old to do a particular job safely and efficiently; if he is fit to work (and all employees are examined regularly by the works' doctor) less exacting employment is found.

Skilled men are never used as labourers, however. Butterleys set a high value on experience and company knowledge, even where a worker's physical output is dwindling. By teaming him with a younger man, they continue to make full use of his skill. The combination of youth and age is particularly valuable to a company whose output includes a large amount of specialized non-repetitive work.

Special Duties

At the same time, the well-being of employees is never forgotten. From hazardous jobs in the assembly department and in the foundry elderly workers are transferred to light machining and similar tasks. Special light duties are reserved for ageing unskilled workers. When a departmental manager retires, his services are often retained in an advisory capacity, proving invaluable to the younger man who succeeds him.

Payment by results is applied throughout the organization. The older men—some are in their seventies and have served the company for more than 50 years—earn good money, and are often more eager than younger men to take on overtime and nightwork. Their time-keeping and safety records are excellent.

Butterleys find that most of their employees are anxious to continue working for as long as possible. A superannuation scheme for manual workers, introduced last year, provides an additional inducement; although employees' contributions cease at 65, their ultimate pension increases for each subsequent year of service.

Elliott Brothers' policy is based, to a large extent, on similar principles. They have proved, too, the success with which older workers can adapt themselves to new jobs and new working conditions.

More than 70 men at Elliotts' Lewisham works are in their sixties. Thirty of them have

Seven Ways of Employing Older People

- 1—Retain the skill and experience of craftsmen for as long as possible by placing elderly men in jobs where they are not subjected to the full pressure of the production line.
- 2—Release younger men for more productive work and boys for training by reserving all "light duties" for elderly unskilled men.
- 3—Overcome the problem of "blocked" promotions by persuading elderly supervisors to accept less responsible posts, or by transferring them to research and prototype work.
- 4—Recruit retired men for routine clerical jobs and recall ex-employees as temporary workers during seasonal rushes.
- 5—Be prepared to adjust working conditions in individual cases. It is better to retain a man's skill on a part-time basis than to discard it entirely just because he cannot conform to a fixed pattern.
- 6—Remember that skill is not affected by age. Older men can play an important part in apprentice and other training schemes.
- 7—Re-train men who become too old for particularly strenuous jobs. Older workers are more adaptable than is often supposed.



joined the company within the past three years, and are now employed in a variety of jobs, some entirely different from their previous occupations. A 68-year-old retired schoolmaster is testing delicate instruments and winning praise for his patience and dependability; a former turf accountant is working as a stock records clerk; an ex-manager of a billiards saloon is engaged on general factory duties.

This represents only one aspect of a policy which was first put into practice about five years ago. While making a survey to find suitable work for disabled men, the management saw the advantage of setting aside certain jobs—car park attendant, inspectors, messengers, etc.—for elderly employees.

The original idea has been extended throughout the organization. Men who have difficulty in keeping up with the pace of production are transferred to prototype-making and to certain types of precision fitting where quality and accuracy are more important than quantity. On the administrative side, their knowledge of

OVER-60s AT WORK: Manhandling a hundredweight of white-hot metal at the Butterley Company's works (above) is 65-year-old Percy Swindle. Two years his senior is instrument-maker Charles Wood (right), who is working for Elliott Brothers

Top picture by Nottingham Guardian Journal

production methods finds a new application in sales quotation work, and in handling shipping and despatch documents. Such changes often have the additional advantage of overcoming the problem of "blocked" promotions.

A transfer to lighter duties generally involves some reduction in the employees' wages. Elliotts have found, however, that most men accept this situation philosophically in return for an opportunity to continue working under more agreeable conditions.

If an employee finds that a full day's work is too much for him, Elliotts are quite prepared to adjust his hours accordingly. Some of the older men start at ten and finish at four. Elliotts take the view that it is better to make use of a man's experience



for a limited period than to lose it completely because he cannot conform to a fixed pattern. Where the employee concerned has already been moved from the main production stream, such adjustments are quite practicable. In some departments, fluctuations in the volume of work enable elderly men to be employed for periods of two or three months at a time.

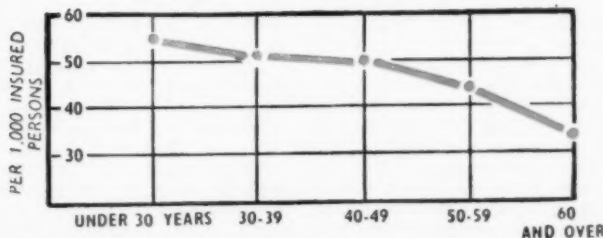
Equal Terms

Age is also disregarded when female workers are engaged. Of 17 women over 55, eight have joined the company during the past three years.

In some types of work, of course, older people can compete on equal terms with all others. This has been the experience, for example, of the Wilkinson Sword Co., Ltd., Acton, London, who make razors, ceremonial swords and high-grade garden tools. Wilkinsons find that the output of their over-60s, who represent 12 per cent of their 400 employees, compares very favourably, in quality and quantity, with that of much younger men. Only in rare cases, when the company particularly wish to retain the services of a highly-skilled craftsman for as long as possible, is it necessary to make adjustments in working conditions.

This example emphasizes — 85

Age Up—Accident Rate Down



New awards of industrial injury benefit, 1950: from "Age and Employment"

Butterleys' and Elliotts' experience has emphasized—that age is not, in itself, a disadvantage; that older workers are entitled, no less than younger men, to be judged on their merits. Particularly significant is the case of a firm which was employing 60 men over the age of 65 when the need arose to discharge a number of workers. After consultation with trade union representatives, it was decided to apply the ability-not-age principle—and as a result only five or six of the older men were discharged.

Some firms make a practice of reserving certain "light duties" for older people. W. J. Bush and Co., Ltd., manufacturing chemists and essence distillers, Hackney, London, set aside such jobs as checking the scales throughout the works, looking after the indoor games room, supervising the office cleaning staff and running the "ready money" department where employees can buy the company's products at reduced prices.

The British Thomson-Houston Company, Rugby, have a scheme for employing elderly workers as messengers. Peak, Frean and Co., Bermondsey, London, maintain a pool of office messengers all of whom are over 65, and in a limited number of cases manual workers are transferred here when they reach 65. Quite apart from the benefit to the individuals concerned, such schemes have an outstanding advantage: they release boys and younger men for more productive jobs.

Adaptability

It would be foolish, however, to put skilled men on "light duties" while they are capable of giving better service in another capacity. The fact that older workers are more adaptable than is often supposed has already been mentioned, and there is plenty of evidence to support it.

During the tram conversion scheme, London Transport successfully re-trained a number of elderly tram drivers as bus drivers; the training programme was very thorough, of course, and transfers were subject to strict medical examinations, but men up to the age of 68 made the grade. Following an agreement



OVER-70 AT WORK: *Wages clerk W. J. Emery, aged 71, started his job with Elliott Bros. in 1952*

with the trade unions, Alexander Stephen and Sons, Ltd., Clydeside shipbuilders, re-train as tack welders men who become too old to work at great heights or under other strenuous conditions.

Employing elderly men for routine clerical duties is another way in which firms take advantage of two outstanding qualities of age: patience and responsibility. Among a number of firms which are already doing this are the Andre Rubber Co., Ltd., Surbiton, Surrey. To replace girls who have left such jobs during the past year, Andres have been recruiting retired men through the local labour office. The men are paid slightly more than girls on similar work, but the company find that their performances justify this.

No difficulty arises in connection with the staff superannuation scheme. As the men are already drawing pensions, they can be treated as "temporaries"—although, in fact, they will be allowed to stay as long as they can work satisfactorily. Their duties include straightforward clerical work in the accounts, planning, costing and moulding departments, and in the stores.

Where production is subject to seasonal variations, the difficulty of obtaining suitable temporary

labour may be overcome by recalling retired employees for a limited period. This is done from time to time by W. J. Bush and Co., Ltd., whose products include essences and flavours for the ice-cream and soft drinks trade. Bush find that many of their ex-employees are only too eager to take temporary jobs, particularly as their pensions are in no way affected.

As the working population ages, all industrial health services will assume greater responsibilities. Only by assessing the ability of individual employees to withstand the stresses of particular jobs—and making the necessary adjustments—can men be kept in jobs for the full term for which they are fit without over-taxing their strength on one hand or reducing efficiency on the other.

This is an important principle of the North Western Gas Board's new occupational health service. Employees are given a medical assessment on entering the industry and also at intervals during their employment. Where a man's health is being affected, or is likely to be affected, by the conditions of his present job, more suitable employment is found; and particular attention is paid to the problems of older employees who wish to continue working after retirement age. Subject to medical and other considerations, employees are able to continue after retirement falls due, if they wish, for periods of 12 months at a time, and these periods may be renewed as long as the people concerned are medically fit.

In operating this service the Board are concerned primarily with the well-being of their employees. This, of course, is an integral part of the problem of the older worker—and of its solution. One or two firms have already established special departments where elderly men can pursue their trades at a more leisurely pace. Best known is undoubtedly Rubery Owen's "Sons of Rest" workshop, described in the June, 1953 issue of *BUSINESS*. Joseph Lucas, Ltd., Birmingham, also have a special section for elderly and temporarily infirm employees. In time, perhaps, other companies will follow their example.

SO much has been written and said of the importance of the new Merchandise Marks Act to the advertising profession that its importance to management as a whole is apt to be forgotten. But the Act, as its name implies, refers first and foremost to the marking of goods, and for this the manufacturers must always bear the primary responsibility.

The main effect of the Act, which is due to come into force at the end of January, is to tighten up the law of false trade descriptions which is contained in the Merchandise Marks Act, 1887. It does not place any additional duty on manufacturers to apply descriptions to their goods. Nor does it affect the question of marking the indication of origin on particular classes of imported goods under the Merchandise Marks Act, 1926.

Under the 1887 Act, it is an offence (among other things):

- 1—To apply any false trade description to goods, or
- 2—To sell, expose for sale or to possess for any purpose of trade or manufacture goods to which a false trade description is applied.

The effect is, however, somewhat restricted by the narrow definition given by the Act to the expression "trade description."

Apart from misdescription as to the identity of the manufacturer, the expression is confined to statements as to weights and measures, place or country of origin, mode of manufacture, materials used or that the goods are the subject of some patent or copyright.

Thus under the 1887 Act it is an offence falsely to mark goods "½ lb. net," "Made in England," "Sheffield Made," "Hand Made," "Matured Seven Years in Cask," "Pure Wool" or "Patented." The definition does not extend, however, to descriptions as to quality or performance—the most potent weapons of the modern sales organization.

The first change made by the

This New Act Affects All Makers of Goods

By a Legal Correspondent

The Merchandise Marks Act 1953 comes into force at the end of this month. It has great importance for manufacturers and their sales managers. For it drives another nail into the coffin of the doctrine of caveat emptor ("let the buyer beware"). The law now takes new care of the buyer. Here an expert describes how the Act affects not only those concerned with the technical aspects of advertising goods, but those members of management who are responsible for policy on the marking and sales of goods.

new Act is to extend this definition to cover statements as to "the standard of quality of any goods according to a classification commonly used or recognized in the trade"; or as to "the fitness for purpose, strength, performance or behaviour of any goods."

This widens the field enormously and brings within the scope of the Acts such statements as that goods are "unbreakable," "fadeless," "heat-resisting," that they "don't damage delicate fabrics," that they are "non-poisonous," "rustless" or "unshrinkable," that they do not obstruct ultra-violet rays or that they "kill offensive smells in five minutes."

Such claims as these were not treated under the earlier Acts as trade descriptions at all. But, from now on, manufacturers and others who make them must ensure that they are accurate—or risk a prosecution.

The second important change is in the definition of "false"

trade description. In the 1887 Act this is defined as "false in a material respect as regards the goods to which it is applied." The new Act alters this to "false or misleading in a material respect."

This is a radical change, since clearly very many descriptions tend to mislead which could not possibly be proved to be "false." The change is intended to, and will, cramp the style of the type of manufacturer who enters into a battle of wits with his customers to see if he can give them an exaggerated and misleading idea of the qualities of his goods without actually saying anything false about them.

To take an example which was cited in the House of Commons when the Bill was being debated, to mark a dress "half what you would usually pay for an all-wool garment," when the dress is not in fact pure wool or anything like it, may not be a false statement but it is clearly going to mislead the unwary.

But this is not all. The new

THESE ARE THE PENALTIES

A good deal of legislation already regulates the description of various specified classes of goods—such as food and drugs.

The provisions of the new Merchandise Marks Act apply, however, to all goods, whether the subject of special legislation or not.

A prosecution may be brought by the Board of Trade, legal authorities, or any association or private individual.

The following penalties can be imposed—

In the magistrates' court; £100 fine or 4 months for the first offence, £250 or 6 months thereafter;

In trial by jury: An unlimited fine or two years, or both.

Act takes things a stage farther and provides that a trade description is to be treated as false—even if it is true on the face of it—if it is "calculated" (i.e. likely) to be mistaken for a false or misleading description. Thus stockings might be described as NYLON-spliced (as has been done) or a vacuum flash as BRITISH MADE and then in small type in another place "foreign inners" (as has also been done). In each case the trade description taken as a whole is a true one, but it is obviously "calculated" to be mistaken for a false statement and so comes within the terms of the new Act.

Finally, something which is not a trade description at all is to come within the definition if it is calculated to be mistaken for one. This deals with the use of phrases which though meaningless in themselves, are likely to be mistaken for description of the goods. For example to advertise stockings as "full of fashion" is not a trade description at all, but since it is likely to be mistaken for "fully - fashioned," which of course is, it might be an offence to apply it to stockings which were not in fact fully-fashioned.

This rule also hits at deceptive get-up in packaging. It might, for example, catch a trader who sold his non-Scotch whisky in bottles with tartan labels and pictures of highland cattle or marked his machine-made imported tweeds with a map of the Hebrides. Such practices are unpopular with the great majority of manufacturers, but profitably exploited by a certain minority.

An important proviso is that it will not be an offence to continue to use a trade mark re-registered or in use on July 31, 1953, even though it might otherwise have become a false trade

description by virtue of the new Act.

It is important to note that, when considering whether a description is false or misleading under the Acts, the test to be applied is what is the ordinary meaning of the words. The fact that a particular description is commonly used in the trade is no excuse if it is in fact false.

A striking example of this is provided by a case decided in 1951 when the description "non-brewed vinegar," applied to bottles of a synthetic acetic product closely resembling ordinary vinegar, was held to be a false trade description, in spite of the fact that it was in general use in the trade and had received the blessing of the Ministry of Food. The magistrate had found as a fact that the liquid was not "vinegar" and the High Court after prolonged argument refused to upset his decision. The manufacturers have now fallen back on such neutral terms as "condiment."

"Without Intent"

Much righteous indignation has been wasted on the fact that under these Acts, once it is "proven that he has applied a false trade description to goods, the burden of proving the defence that he acted without intent to defraud lies on the defendant. If this were not so, the whole scheme of the Acts would be ineffective. If an intent to defraud someone can be proved, the defendant could be convicted of obtaining money under false pretences or at least of attempting to do so. The Merchandise Marks Acts are not intended to deal with such offences, which are already covered by the ordinary law.

The object of the Acts (and it is

generally agreed to be a valuable one) is to prevent the sale of goods under false markings. If a man is proved to have done this it is for him to show some excuse, and in practice the only excuse the courts will accept is proof that he acted "by mistake or inadvertently." An earlier Act passed in 1862, which did not contain this provision, proved wholly ineffective.

Where a person is charged, not with applying the false description to the goods, but with selling or possessing goods to which a false description has already been applied, an additional defence is open to him. If he can prove that he had no reason to suspect the genuineness of the description and was not negligent, he may throw the responsibility back on his suppliers. Thus in the case of pre-packed or labelled goods it is the manufacturer or packer who is ultimately held responsible for the markings applied.

The word "applies" which is used throughout the Acts is not confined to physical application to the goods. It has been held to include, for example, the use of a description in an invoice supplied with the goods. It does not extend, however, to mere description by word of mouth. To what extent it covers description in advertisements in newspapers or posters is a matter of some doubt, but anyone who permits false advertising copy to be used is certainly risking a prosecution.

Employers may be criminally liable under the Acts for offences committed by their employees even if those offences were not authorized by them. For this reason, if for no other, it is important to ensure that all members of sales organizations are fully conversant with the provisions of the law.

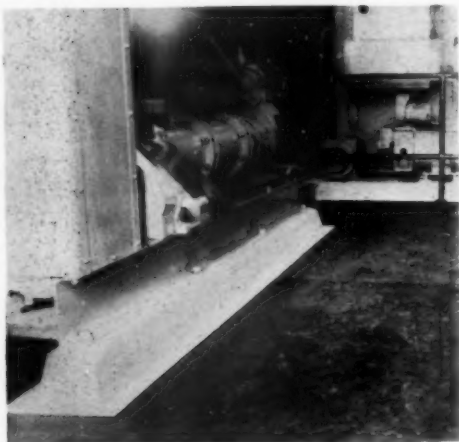
Provided, however, reasonable care is taken to restrain the over-enthusiasm which is not a rare quality among the best salesmen at whatever level, there seems to be no reason why the new Act (which has the general approval of all parties and the majority of trade organizations including the F.B.I.) should prove anything but a benefit to the vast majority of manufacturers and traders.

**BETTER THAN
A NOTICE**

This packing point for export bulk goods had to be sited by a busy gangway because of machinery on the floor above. The problem was to keep people and internal transport clear of it so that there was no possible risk of contamination. The answer was to combine fluorescent lighting with bright yellow painted equipment. The result is that it stands out more vividly than any warning notice.



Ingenuity, Better Methods Make This Factory More Efficient



**SPOTLIGHTS
DIRT**

Efficiency in the factory can be achieved in many small ways. In the Hayes plant of The Nestlé Company Ltd., BUSINESS selected these examples of ingenuity and better methods which could be applied in many factories and industries. The exchange of efficiency ideas helps everyone and the Editor would be pleased to hear from readers who will co-operate on similar picture features.

The base of each machine used to be painted the same colour as the rest of it. Now bases are painted white. Result: any spillage is immediately apparent. The same treatment is given to the wall surrounds.

**SUPPLIES COME
TO THE LINE**

Empty tins are received in fibreboard containers on pallets from the manufacturers. They are off-loaded by fork truck and stored. Later they are moved—still palletized—to the ready-use store on the first floor. When required, a pallet is taken by a small pedestrian-controlled fork truck right to the end of the line. This avoids having stores of components and materials almost on top of the production line. Another point: palletization means unit loads, easier stock control and a quicker check on supplies.





LOW COST PALLETES

This is a cheap and simple means of producing expendable pallets. Each pallet consists of nothing more than a sheet of hardboard with a damaged 16-oz. empty tin nailed to each corner. They can take a half-ton load and be stacked safely three high.

Where women are employed on "messy" jobs, like those in the starch-handling section or the cocoa department, nylon overalls have been introduced. There are four good reasons for this: (1) powders—such as cocoa or starch—do not penetrate nylon; (2) they are easily washed; (3) they dry quickly and (4) they are stronger and have a longer life.

NYLON FOR SERVICE AND GLAMOUR



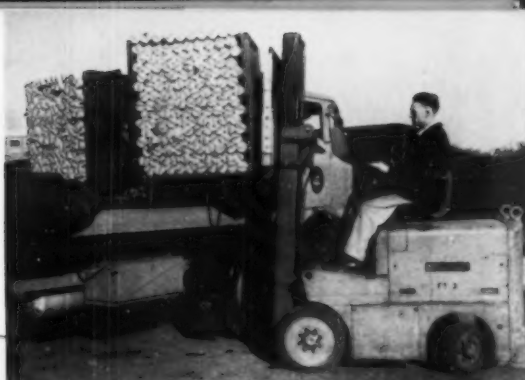
SWING LIDS WERE THE ANSWER

The use of high-speed machines for wrapping chocolate bars inevitably results in some waste (e.g., spoiled wrappers and foil). This material could have been allowed to fall on the floor (bad housekeeping) or could be placed in bins. Bins had to have lids, which meant that disposal was a two-handed operation. The solution was to introduce bins with swing lids as seen in this picture. Scrap material can be disposed of without the operator having to stop the machine or even take her eyes off it.



Can ends now arrive in one-ton palletized loads and transhipment is simple and speedy. Previously each "pack" of ends (weight, 5½ lb.) had to be unloaded by hand on arrival from the manufacturer. This was slow, wasted labour and resulted in damaged packs. Now a pallet load of ends can be taken by low-lift platform truck to the filling room and conveyed to the can sealing machines. The operator tears the paper from one end of the pack and places it in the hopper of the machine. This timesaving little point was devised by the operators; Nestlé like this attitude.

**INGENUITY ALL
DOWN THE LINE**



**AVAILABILITY UP
MAINTENANCE
DOWN**

Increased output means the more intensive use of factory equipment. This can lead to top-heavy maintenance staff to deal with repairs. Some time ago all the stillages in Nestlé's plant were wood and they were frequently damaged and made unserviceable. Now, tubular steel ones have been substituted which are stronger and last longer.

The skips seen in this picture are used to send goods to depots. Originally they were designed to be lifted by overhead crane and the tops were reinforced for this purpose. Rather than scrap them when fork trucks were introduced, they were ingeniously adapted by cutting slots in the sides through which the forks could pass. Thus they can be picked up from the top—where there is the greatest strength.

**QUICK
CONVERSION**



How Incentive Schemes Can Cut Your Costs

By WILFRED ALTMAN

THE success of any incentive scheme depends largely on one factor. Does it stimulate an employee's productive effort and give him a greater interest in his job? If the answer is "Yes" and the scheme has been well-formulated, it will not only increase quality of craftsmanship and output—it will reduce costs.

A special survey made for *BUSINESS* reveals that the most popular schemes are in the form of direct incentives, or incentives allied to production, e.g.:—

*Payment by results,
Piece rate,
Production bonus,
Job grading,
Merit rating,
Profit sharing.*

There are incentive schemes to suit every type of business, whether the concern is a small engineering company employing 40 people, or a large chemical manufacturing firm with a payroll of several hundred.

Most of the companies which co-operated in this survey found that, having decided to consider introducing some form of incentive scheme, the wisest course was to bring in a management consultant. The desirability of having trade union and employee representatives present at all stages leading to the adoption of a scheme will be obvious to all industrialists.

Equally, it is clear that the first few month's working of a scheme are bound to be a period of trial and error, involving an immense amount of work. Despite this, the results invariably show that the effort has been well worth making.

An incentive scheme which combines the best features of

**Cost
Cutting
Angle**

Maximum labour efficiency, in terms of output and quality obtained for a given wage bill, stands high on the list of objectives for the company which is reviewing its costs. *BUSINESS* therefore includes in its "cost-cutting" series a special survey of current practice in incentive schemes, examined from this point of view. The firms which it covers are engaged in everything from small-scale specialized production to mass consumer-goods manufacture; their joint experience represents a complete and up-to-the-minute picture of practical value to management in any branch of industry. The survey has been divided into two parts, the second of which will appear next month.

merit-rating and profit-sharing is used by Messrs. Roberts and Armstrong (Engineers) Ltd., of North Wembley, a small company engaged in precision production of components for the engineering trade and a high percentage of work of a jobbing nature. It is a scheme known as merit-sharing, devised by one of the company's directors, Mr. J. Armstrong, B.Sc. (Eng.), A.M.I.Mech.E., A.M.I.I.A., and discussed at length in his book "Incentive and Quality."

To produce the scheme, a committee was set up comprising the directors, the shop supervisor, the employee with the greatest length of service and an employee elected by the workers. A questionnaire was then circulated asking whether employees agreed with the idea of a new

bonus scheme and giving a list of points for assessing merit which they were asked to mark in order of importance.

Subsequently, four meetings were held to discuss the many points arising before the scheme was agreed and a general meeting of all employees called to have the committee's deliberations explained to them and to seek their acceptance.

Roberts and Armstrong's bonus depends on two factors:—

- 1—General shop bonus (known as "Profit Index");
- 2—The individual employee's contribution towards the general well-being of the business as measured by his "rating number."

The general shop bonus is calculated on the basis that if the

increase in production over a pre-determined level is doubled, then the general shop bonus will be doubled too. The profit index is determined on the basis that all fixed charges, overheads and general operating costs, including wages, are recovered before bonus is paid. Any production above this level is regarded as a contribution towards the profits of the company and is shared with the employees.

This profit index, however, does not represent actual profits in the normal sense of the word, but the rate at which profits are varying. For example, calculation of the index is so arranged that this figure, when used as a percentage of the net operating wages, will give the employees a satisfactory share in the profits of the company.

To determine the profit index for each month, the actual sales turnover is adjusted by the variations in the value of work in progress. The bonus is paid monthly. If, however, the total production one month happened to be below the level required to pay a bonus, no bonus would be paid. The amount by which the total production failed to reach the required level would be cancelled and the production for the following month not penalized.

This contingency has, in fact, never occurred since the introduction of the scheme.

The bonus paid to the employee is increased by his rating number percentage. The rating number for each employee is the average obtained from three separate ratings. These three independent ratings are strictly confidential between the actual rater and the director responsible for correlating them. But the average rating number is given to the employee by the general foreman. If an employee is dissatisfied with his rating number, he can appeal first to the director concerned, or, in the last resort, to his shop representative, who can call a meeting of an arbitration committee.

Ratings normally take place every three months and represent the average performance of the employee during the period under review. The employee's rating is guaranteed for a period of three months, except in the cases of new employees and employees whose numbers have dropped: they are rated monthly. Due allowance is always made for conditions of ill-health, mental worry, etc., where these temporarily affect an employee's rating number.

The bonus percentage paid to

employees is calculated as follows:

$$\text{Profit index} \times \frac{\text{rating number}}{\text{percentage}}$$

Bonus is paid only on net wages, not on holiday or sickness pay.

Since the introduction of the scheme, says Mr Armstrong, wages have risen by something like 20 per cent, due to basic awards in the industry and increased ability. Heat, light and power, materials and purchased items have risen by a similar amount. Yet selling prices have remained fairly constant. The turnover has increased by over 100 per cent, and, in practice, some of the men are earning as much as 50 per cent bonus in addition to wages.

Thus the benefit of the scheme has been passed on partly to customers, partly to employees and partly to the company.

By Departments

Bata, the well-known shoe manufacturers, exporters and retailers, pay their factory workers high piece rate based on collective or individual output. Senior workers, known as share-men, are given a special premium, and the supervisory and managerial staff are receiving, besides their salary, a share on profits made. Premiums are also paid on output. Thus the supervisory staff derives a two-fold benefit, i.e. not only from profits achieved but also from production. These amounts are credited to their accounts each week and they can withdraw whenever they wish. This is made possible by the fact that Bata—unique in Britain, perhaps—arrives at a departmental production and trading profit and loss account every week.

While promotion to the managerial ranks would entitle him or her to a share in the department's profits, every worker has a double incentive to reach the skill and knowledge in his work, and thus to qualify for promotion.

And Bata's find that, despite higher overheads and wages, the increase in production cuts their costs.

Incidentally, there is a third incentive—an annual "Christmas quality competition," with £2,000 to be won as prize-money. This

ARMSTRONG'S

Check List for an Incentive Scheme



It should—

- 1—be easily understood, and its benefits readily assessed, by all employees
- 2—be acceptable to the employees and so operated that they will have confidence in it
- 3—benefit both employer and employee
- 4—be operable satisfactorily under the extreme conditions of a variable labour market
- 5—relate benefits to effort
- 6—stimulate characteristics which

the employer wishes to maintain or improve

- 7—assess employees individually
- 8—have a short time-interval
- 9—stimulate the interest of employees in the welfare of the business
- 10—control and assist supervision
- 11—stimulate co-operation between employees

It should not—

- 1—be very costly in operation
- 2—limit the amount of benefit
- 3—be detrimental to the welfare of the employees

competition lasts for five weeks and includes all production departments in the leather and rubber factories, as well as the box-making, hosiery, polish and stockinette weaving departments, and the mechanics (the last, to ensure first-class condition of machines).

Emphasis throughout the competition is on quality (for which the majority of points are awarded), output, general cleanliness and good order in the workshop, clean machines and regular, punctual attendance.

To stimulate interest in the competition, the workshops are classified as football teams and leagues. A draw takes place during each week of the competition and points are published daily in each department, and at the end of each week in "Bata Record" the company's weekly staff paper. Workshop foremen "skipper" the teams, managers are trainers, the factory manager is chairman of the "league" and the production manager is chairman of the "association."

Thus a combination of incentive schemes, such as Bata's piece-rates, profit-sharing and competitions (or group production bonus) serve a treble objective—they enhance industrial

relations, increase output and cut costs.

While many incentive schemes have universal application, in the chemical industry, whose production ranges from pure chemicals in bulk to the activities of allied industries, most schemes need some modification. Monsanto Chemicals, Ltd., one of the largest chemical manufacturing firms in the country, have found a suitable answer by developing a system of job analysis which,

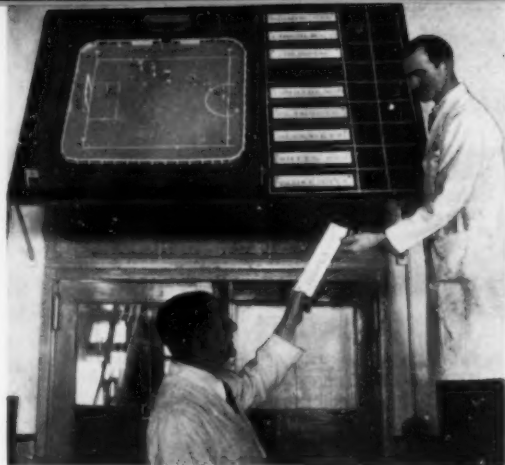
though already in operation in one of the factories of their parent company in the United States, was introduced over here at the request of, and in conjunction with, the union representatives of the company's employees.

Monsanto's scheme requires a plan of all the jobs in each department, a description of each individual job, an analysis of all the factors in the job and, finally, the awarding of points. This entails a careful analysis of the content of each job, which is then broken down into four factors: skill, responsibility, physical requirement and effort, working conditions. (See the job analysis sheet illustrated on this page).

Points System

Points are awarded under these main heads and then converted to a rate for the job, under a system agreed with the union. For example: Grade 1 may be 0—30 points inclusive, for which a bonus of ½d. is paid. Each grade then runs 30 points higher, up to 1,000 points for Grade 32, and is worth ½d. more, with a maximum of 9d. per hour bonus per shift of eight hours.

Monsanto's budget for a maximum bonus award equal to one-third of basic pay. Now, after six years' operation, the scheme has contributed greatly towards raising efficiency, increasing production and reducing costs; and has provided a progressive promotion scheme.



PRODUCTION LEAGUE: Every workshop is a football team—and League results go up on the board. It's part of Bata's "Christmas quality competition" (prize-money, £2,000)

STANDARD CHEMICALS LIMITED
JOB ANALYSIS - MAIN HEADS
ANALYSIS OF POINTS ALLOCATION

MAIN HEAD	Sub-Head	Points
SKILL POINTS	1. Education	80
	2. Experience & Training	80
	3. Job Requirements	100
	4. Skill	80
	5. Personal	80
RESPONSIBILITY POINTS	6. Responsibility for personnel	100
	7. Safety	80
	8. Responsibility for plant	80
	9. Responsibility for material	80
EFFORT POINTS	10. Attention & Activity	100
	11. Mental Effort	80
	12. Physical Effort	80
WORKING CONDITIONS POINTS	13. Atmosphere & Temperatures	100
	14. Hazards	80
	Total points	1000

YARDSTICK: Job analysis under the four main heads seen on this sheet is the basis of the incentive system at Monsanto's

It always seems easy—when you know how. This success story is no exception. Its lessons for management are clear: make up your mind, and if your methods pay, then stick to them. The subject of this biography saw that his product was right in quality and price. He knew his market and concentrated all his efforts on reaching that market. After war had brought near-disaster he began again—with the same techniques. And twice in one generation his policy paid.



He Prospered Twice with the Same Selling Plan

By LEONARD G. RULE

WHEN he was fifteen years of age, Gordon Ralph Hall Caine ran away from school at King William's College in the Isle of Man. He wanted to go to Canada. He signed on as cabin-boy with the White Star line, and sailed in the *Britannic*. His articles were for the round trip, but he jumped the ship at Quebec. That, he says, was the only business contract he has ever broken.

He had been brought up in a literary atmosphere—as might be imagined, for he was the son of the most successful novelist of the day. But young Hall Caine had no feeling for artistic work—in fact he did not know what he wanted to do. When he got to Canada he worked as a clerk on a railway, but soon shifted to a

lumber-camp, again as a clerk.

From lumbering, he followed the raw material into the paper mills and acquired a working knowledge of paper-making. This has remained one of his greatest interests in life. He coupled his Canadian experience with work in American mills, and while working there met William Randolph Hearst who knew his father as a London correspondent for Hearst papers. Hearst offered the boy a job as a secretary, and Hall Caine began to learn something of newspaper and magazine production.

While working for Hearst, he met Alfred Harmsworth (later Lord Northcliffe) who was visiting the States. Harmsworth had a message for him from his father, who was worried about

the lad. He wanted him to come home. So did Harmsworth. There was an opening on the *Daily Mail*, and young Hall Caine decided to take it. So his interests turned to publishing, with his paper-making knowledge as the background.

When the first world war came, he was able to help Lloyd George, then Minister of Munitions, in controlling the use of paper, and with an idea for speeding-up the filling of shells. As assistant to the paper controller, he came into touch with many big business men and they turned his mind to the financial side of business.

In time he became chairman of the Broadmouth Investment Trust, concerned with the flotation of other companies. Among these, 25 years ago, was *Ciro Pearls Ltd.* *Ciro pearls* had been invented by a man named



6 Ways to Success

- 1—Ensure that capitalization is adequate.
- 2—Get the product right—in quality, design, price.
- 3—Know your market and direct all your efforts at it alone.
- 4—Train your staff to handle your type of customer.
- 5—Keep faith with the customer: e.g., the product should be as good as, or better than, the catalogue illustration.
- 6—If your methods paid once, but then failed through no faulty of your own, try them again when you can.

M. J. Goldman who made and marketed them in Britain and afterwards in France. *Ciro Pearls Ltd.*, were to market them in Britain and the rest of the world, except France.

The financier in Mr. Hall Caine saw the opportunity of engaging in an enterprise which would, he thought, have a solid basis in the never-failing vanity of women and their capacity to make their men buy adornments for them. Moreover, he says that every business man has one pet in the business world: his pet was *Ciro Pearls*.

As chairman of the new company, he immediately applied one of his golden rules: there must be enough capital to work with. He believes that no company can work properly if under-capitalized. He studied his market carefully, for though *Ciro* pearls and other merchandise of the company are ranked as luxuries, the real target is not a wealthy class of purchaser. On the other hand, a great many wealthy people go to *Ciro Pearls* to have jewellery copied.

So *Ciro* shops had to be carefully sited. Business not being big enough to warrant extravagant premises in every town, the idea was conceived of having a "store within a store." Only in

capital cities—London, New York and so on—do *Ciro* have stores of their own, which rank with the best jewellers in town. Elsewhere they have small shops in department stores catering for the kind of public they want to reach.

Ciro's trade is based on the belief that only the expert can tell the difference between their imitation pearls and the real thing—or "wild" pearls as they are called in the trade. As with pearls, so with the rest of their jewellery imitations: the design and craftsmanship are so good that the usual indications of imitations cannot be found.

It was evident to Mr. Hall Caine that his particular public would need careful handling, so a technique of selling was devised. Every assistant at *Ciro's* has to go to school for some weeks before being allowed into the shops. The girls are taught to offer first the cheapest article in the line wanted by the customer. Almost always this is too cheap, and the young man buying for his girl friend is proud to ask for "something a little better." He may even be able to go beyond that, and generally finishes up by buying something that he had thought beyond his means.

The customer must never be made to feel inferior, or uncomfortable, because he, or she, has not enough money to buy the more expensive article. The sale must be so conducted that the customer feels free to leave the shop at any moment.

Another rule is that no assistant may wear any jewellery

while at work. The reasoning behind this is that the assistant might wear a piece of jewellery of better quality than the customer is able to buy, and this could produce the feeling of inferiority that it is desired to avoid.

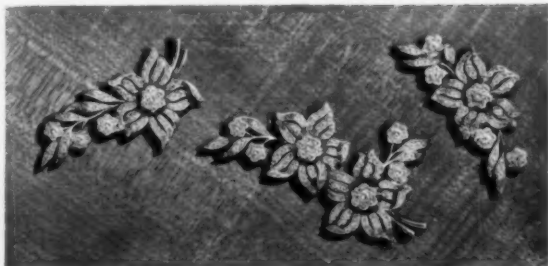
Publicity was directed carefully to the media catering for the class of public aimed at. Every advertisement was keyed so that the results could be checked. Advertisements invited readers to send for a catalogue, and the firm ensured that the article purchased looked as good as, or better than, the illustration in the catalogue.

On this basis *Ciro Pearls* prospered. Within ten years, their products were accepted by the rich as perfectly good substitutes for jewels too valuable to be worn on any but the rarest occasions, and by other social groups as being the kind of jewellery they could afford, and still show good taste in the wearing.

Ciro Pearls also sell cultured pearls. The difference between these and "wild" pearls is not always understood. Both kinds come from the pearl oyster, but the grain of sand which starts the wild pearl gets into the pearl oyster by accident: in the cul-



THE PRODUCTS: A necklet of pearls and handmade spray brooches of diamonds are typical examples of *Ciro* craftsmanship





THE OUTLET: Small shops in department stores—a store within a store—solved many a siting problem

tured pearl, a tiny "core" of mother-of-pearl is put into the oyster deliberately. In fact, as cultured pearls age in the oyster they grow more and more like wild pearls.

With the evident approach of war in Europe, Mr. Hall Caine and his associates decided to buy up every cultured pearl they could. This decision stood them in good stead, for during the war they were unable to deal in the imitation pearls which were their main business in normal times.

Their marketing of other imitation jewellery was also severely limited. International trade ceased, and the firm had to close all but two of their branches in England, two in Scotland, two in Ireland, and one in Wales. Only the New York branch did good business.

The war's end found closed branches, dispersed staff, gravely reduced capital. International trade, far from blossoming in peacetime, became more and more hedged about with restrictions. Some markets—such as South Africa, India, Pakistan—closed altogether.

Proven Policies

But these immediate, and subsequent, post-war difficulties were a spur to Mr. Hall Caine, and in tackling them he used fully the well-tried, proven policies of his early years in the business.

First, capital. As would be expected of a man with his views, he tackled at once the problem

of capital reorganization. His scheme produced enough capital for the firm to operate again.

Secondly, the marketing plan. The same pre-war plan of directing all efforts to the groups of people who could buy the firm's wares was followed. The same idea of setting up "stores within stores." The same kind of advertising.

Expansion

Last, but not least, staff training. Once again shop assistants were groomed at the training school in the selling methods and the behaviour towards customers which had paid handsomely before the war. They paid again.

Within three years, prospects looked bright. It was soon possible to open branches in the provinces. Today, *Ciro Pearls* have 17 branches in the United Kingdom and Eire, and two others have been opened in the United States.

In setting up the new "stores within stores" since the war, a whole range of standard fittings and fittings have been used. Not only do these simplify construction and help to give character to the shops; they also facilitate repairs and redecorations. Great importance is attached to this matter of redecoration: it is the view of Mr. Hall Caine that any shop doing "luxury" business must appear smart outside and in. He regards expenditure on painting and decorating as a vital investment which will quickly

repay itself; if the work were left undone, trade would suffer.

A very large mail order business has also been developed. This is based on advertising in such papers as the *Radio Times* and the *News of the World*. The key to success is the fact that the goods sold to the customer look better than those in the catalogue. Design, too, is all-important, and *Ciro Pearls* give an undertaking to any customer that an exclusive piece really is exclusive.

This attention to detail is reflected in another aspect of the firm's activities. *Ciro Pearls* claim to have led the jewellery trade in the design and manufacture of jewellery cases.

Feeling they could better the traditional types of case, they designed their own. These were made for them by a London firm of long standing in the trade who were so impressed by the designs that they asked permission to sell similar cases to other jewellers. *Ciro Pearls* agreed, subject to the reservation that certain materials should be exclusive to them. Many jewellers are now using these cases.

In any firm, stock control is important. In a business in which the lowest-priced article sells at two guineas, and the more expensive may reach fifty-five guineas, stock control is vital. It is essential to know where merchandise is so that it can be put into circulation from a "sticky" area.

Every item has a number of

Continued on page 86

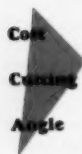
MANAGEMENT IN CONFERENCE

CUTTING OFFICE COSTS

RATIO of office workers to manual workers is now 1 to 4½, against a pre-war figure of 1 to 5½. And the trend is towards a further narrowing of the gap. If the staffs of the 280,000 companies registered at the end of 1952 could each be reduced by 5, there would be a saving of 1,400,000 clerical workers and an annual money saving of £7 million in salaries alone.

Could economies on this scale be achieved? Yes, said A. J. Brockbank, office manager, Glaxo Laboratories, Ltd. How? By the creation in each business of a specialist post of clerical manager, or, in larger concerns, a clerical department. The man appointed should be directly responsible to top management, and have the status and pay of any other departmental manager employed by the company. And he must have management backing to force through new methods.

He would be responsible for the clerical function wherever



A. J. BROCKBANK

located, and the chief accountant, secretary or works manager would have to accept reasonable requests on clerical methods employed, in the same way that they accept requests from the personnel officer on personnel matters. He would be directly responsible for service departments—telephone, post, typing pool, etc.—giving a common service, as well as for office furniture and equipment, form

In place of the regular feature "Management at Work", **BUSINESS** presents this month a series of summaries of papers read to the November conference of the British Institute of Management.

design, office establishment, work standards, staff job evaluation and—in conjunction with the personnel department—staff training.

PRODUCTIVITY CHECK

COMPARISON of performances in different factories in the boot and shoe industry in Britain dates back to 1934 but it was not until after the war that any large scale work was done. Then the British Boot Shoe and Allied Trades Research Association sent a small team into a dozen different firms in the men's welted shoe section.

The team consisted of a leader and shoe technician, a methods engineer, a time and motion study engineer, an economist-statistician, two male assistants and one clerk. The team spent four weeks in each factory and worked out a method for expressing the labour time spent on each operation in the manufacture of certain straightforward shoe patterns. The unit employed is man-minutes per dozen standard pairs (MMDSP). Since then the same team has gone into factories in other sections of the industry.

What has the manufacturer got out of this work? According to H. Bradley, director of the Association, "These detailed comparative performance records provide a new tool for management and throw a bright light on the reasons for productivity differences. For instance, we put our finger on the exact place where the average American shoe factory beats the average British, where the efficient British factory leads the less efficient one, and where the British shoe productivity is ahead of the French productivity level.

"On the major shoemaking

operations—those which are difficult and require craftsmen, the key operations—our productivity, in terms of pairage output per hour, is quite equal to and sometimes exceeds that in the States. But on the minor jobs, the unskilled or semi-skilled green labouring operations, the unimportant jobs which anyone can easily learn in a few days or weeks, the story is very different. Productivity differences of 8 or 10 to 1 are common, 35 to 1 has been recorded; it is here that the inefficient collapse, here that the American streamlining of production shows up to its best advantage. But some British factories have attended to detail of this kind to an extent which has brought them up well into the average American productivity range."

TOMORROW'S MANAGERS

FIRST step in planning for top management succession is to list estimated requirements both by function and by time. One way is to mark on an organization chart those people who may be expected to retire in the next



R. G. SOOTHILL

10 years and those who will retire in the following decade.

Next stage is to recruit promising young men to fill expected

MANAGEMENT IN CONFERENCE

vacancies. Three outside sources should be tapped: universities and other centres of higher education, the schools, and the occasional contact from other sources. But an important source should be the internal one.

Trainees should all pass through a uniform course of general training. Learning "over the shoulder" is of very little use, according to R. G. Soothill, joint managing director, Turner and Newall, Ltd.

Such courses, he suggests, will normally occupy from one to two years, and trainees completing a course should be seen by the chief executive and assigned, as soon as possible, to some minor managerial post. Personal encouragement of a director or senior official can be most important at this point in avoiding frustration.

MANAGING DIRECTOR

THIRTY-FOUR points about a managing director that please a company chairman were outlined by Col. W. A. Grierson, D.S.O., managing director, Hayeshaw, Ltd. Samples:—

A managing director who believes that the moral is to the physical as 3 is to 1, and takes steps to have the best possible trade union and labour-management relations;

who understands the word "mass", i.e., maximum effective concentration at the decisive point, and acts on this principle.

who, when introducing modern management methods, starts with himself and works downwards.

who has a good canteen—and frequently lunches there.

who guards against weaknesses in the managerial structure on the side on which he is himself well qualified, and does not rely on his own specialist knowledge to compensate for any shortcomings on the part of one functional executive.

who believes in competition and accepts its challenge.

whose report to the board shows what last month's produc-

tion cost—and what it should have cost.

who seeks to have among his chief officials one or more who, on account of ability and training, could succeed in case of need to the position of managing director of the company.

EXPORTING TO CANADA

THE way into Canada is often a highly complicated operation, entailing extensive investigations and negotiations, said J. S. P. Armstrong, agent-general for Ontario. Best approach is to form your own Canadian com-



J. S. P. ARMSTRONG

pany for sales and servicing, which can, after a year or so, gravitate into assembly and then manufacture.

But look well before you leap. Information is readily available on possibilities from the various Canadian authorities in London, Canadian banks and railways, and the British Board of Trade.

At Ontario House, for instance, officials, after ascertaining management's views, will supply material and advice and airmail details to Toronto for further official investigation and report. The next step—if initial reports are favourable—is a visit to Canada by a senior executive of the firm. The man sent should be a top-level executive, and should be prepared to spend at least three or four weeks in Ontario alone. And always leave a few days up your sleeve to cover eventualities.

Another method successfully used by a number of British firms has been the purchase of an

existing company in Canada—not necessarily in exactly the same line of business.

GROUP EXPORTING PAYS

EIGHT advantages of group export selling were put forward by J. P. Ford, managing director, Associated British Oil Engines (Export), Ltd. They were:—

1. Costs of travel and development are shared, and overlapping costs eliminated.

2. Each company gets more information and more outlets than they could hope to secure on their own.

3. Agents can handle a complete range of products and sell better; on the other hand, the group has closer control over the agent and can, if necessary, bring greater pressure to bear on him than could a single company.

4. Raising of finance—short or long term—is easier, and better discounts can be obtained.

5. Contacts with official and semi-official organizations, export houses, etc., can be more closely maintained through a London office.

6. Advertising and publicity can be more effectively handled.



J. P. FORD

7. Market research can be carried out more efficiently.

8. Insurance and shipping arrangements are easier to carry out.

An article by Mr. Ford describing his own export group appeared in *BUSINESS* in May last.

wages, and thus taken for granted. Profit-sharing certificates, on the other hand, give the workers the feeling that they are participating in the company's affairs—which is in fact true—and emphasize the point that the profits depend on their own efforts.

This belief has shaped the manner in which the scheme is "put over." Profit-sharing dividends, subject to P.A.Y.E. tax deductions, are never tacked on to wages. At any time within four months of the annual general meeting, they are distributed in separate envelopes, each of which contains a statement showing just how the employee's share has been computed. Previously, of course, the annual dividend percentage—as declared on the company's ordinary stock—has been publicized on the work's notice boards.

One rule which helps considerably to simplify the administration of the scheme is that, with one small exception, all calculations are based on complete years of service from April 1 to March 31. This inevitably creates anomalies, particularly in the case of workers joining the firm just after April 1 or leaving just before the end of March; but Rabones find that their employees have accepted without criticism a situation which was made plain in the first place.

The only exception is that an employee who leaves after September 30 is entitled to an interim dividend on the value of certificates already allotted (in the event of being declared).

Administration of the scheme is also simplified by the "waiting period" of five years. Although this rule is intended to encourage new employees to stay with the firm until they benefit under the scheme, it also takes into account the fact that any dividend on shorter periods would be insignificant.

At the end of five years, the employee's full service qualifies for an initial allotment of certificates. For example, a man who joined in February, 1951, will receive an initial allotment of 50 certificates after March 31, 1956; from then on, of course, he will receive ten additional certificates at the end of each complete year of service.

As a result of these rules, the scheme's administrative cost is negligible. Despite the fact that more than 80,000 certificates have now been issued to nearly 50 per cent of Rabones' employees, and individual dividends range from £6 to £60, the administration is handled smoothly and efficiently by the wages office. No attempt is made to pay dividends on a specific date, which means that the work can be spread evenly over a period of several months, and no extra staff are needed.

Rabones' intention has been to make their scheme as fair as possible to all employees. For this reason, a number of additional rules specify the profit-sharing qualifications in exceptional cases. These include:—

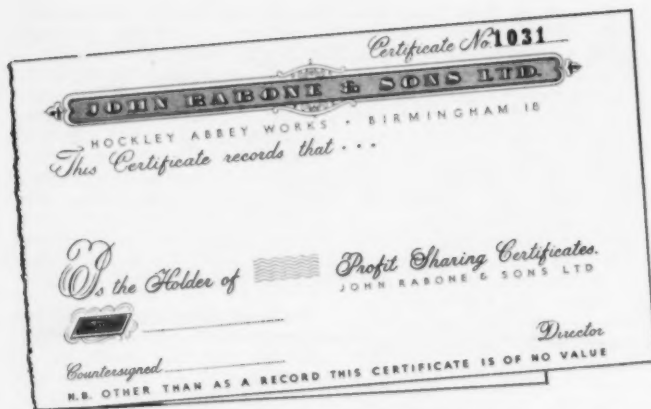
Absence (due to illness or other causes). Unless an employee's

total absence in one year exceeds 13 weeks, neither the dividend nor the allotment of certificates is affected. Absence for between 13 and 26 weeks halves the normal dividend but still does not affect the allotment. Absence exceeding 26 weeks, however, acts as a disqualification in both cases (without prejudicing subsequent dividends or allotments). An employee who is dismissed from the firm immediately forfeits all profit-sharing rights.

National Service. The period of compulsory national service qualifies for the allotment of certificates if the employee has spent at least one "complete" year with the firm before and after national service. (In calculating initial allotments when the scheme was introduced, service in both wars was taken into ac-

Ten Points in Rabone's Scheme

- 1—Profit-sharing certificates are allotted to employees at the rate of ten for each year of service.
- 2—Nominal value of each certificate is £1. But it has no value other than as a token of the holder's eligibility for an annual dividend.
- 3—On death, retirement or dismissal, all certificates held by an employee automatically become void.
- 4—Holders of certificates receive dividend at the same rate as the company's ordinary shareholders.
- 5—All employees must have five years' service before receiving an initial allotment of certificates.
- 6—All calculations are based on complete years from April 1 to March 31. No parts of a year are considered.
- 7—An employee leaving after September 30 receives an interim dividend for that year.
- 8—Special provisions are made to include part-time workers in the scheme.
- 9—Compulsory national service normally counts as part of the qualifying period.
- 10—Absence up to three months in any year affects neither dividend nor the allotment of shares.



This is the form of certificate issued to the employee.
It records the annual dividend to which he is entitled

count where the employee had joined the company before enlisting in the armed forces).

Re-engagement. An employee who leaves the company voluntarily and subsequently re-joins may count all service in "complete" years—subject to a waiting period of three years after re-engagement. This applies even to employees whose first period of employment with the company took place before the scheme was introduced. The idea of the waiting period is, of course, to establish the employee's "good faith," in fairness to other workers whose service has been continuous.

A point which demonstrates the scheme's flexibility is that Rabone's have successfully included their part-time workers, many of whom have long periods of service—much of it, perhaps, on full time. To enable profit-sharing certificates to be allotted equitably in such cases, part-time workers are divided into two categories:—

Group A (working approximately half the regular full time worked in the factory). Their qualifying period is ten years, for which 50 certificates are allotted. Additional allotments of ten certificates are subsequently made at the end of every three years.

Group B (working approximately three-quarters of the regular full time worked in the factory). Their qualifying period

is eight years, for which 50 certificates are allotted. Additional allotments of ten certificates are subsequently made at the end of every two years.

In both cases, part-time workers whose qualifying periods of service when the scheme began were more than ten and eight years respectively received initial allotments of certificates on a more generous scale. Group "A" workers received 60 certificates for 11 years' service, 70 certificates for 12 years' service, and so on; Group "B" workers were treated similarly. In this way, the past service of older workers who had transferred to part-time work was recognized and rewarded.

Exceptions were also made for employees whose ages exceeded the scheme's limits of 65 for men and 60 for women. For example, a man who was 68 when the scheme began, and had then served the company for 48 years, would have received a once-and-for-all allotment of 480 certificates. Since then, the allotment of additional certificates has ceased at the prescribed age limits, but old employees are entitled to full dividends on their holdings until they retire. The directors have full discretionary powers to enable them to make exceptions in cases of hardship or for other reasons.

No spectacular tactics were used to "put over" the scheme when it was announced in Dec-

ember, 1950. The rules had been set out plainly, and the company hoped that the scheme would be accepted on its merits—which, in fact, happened. Copies of the rules were distributed to all employees, whether or not they qualified for shares at that time, and initial allotments of certificates were made during the following weeks.

In calculating dividend payments for the first year, which ended on March 31, 1951, Rabones used ten per cent. as a "norm," the dividend for that year not then being known. This eased the administrative work in the scheme's early stages. Subsequently, of course, the dividend has been the same as the dividend paid to ordinary shareholders—12 per cent in 1953.

This article has explained how a simple profit-sharing scheme was drawn up and put into operation. The story is incomplete, however, until it explains why an old-established company, whose history has been remarkably free from labour disputes, decided to introduce profit sharing.

There are three answers:—

- 1—A belief that their employees were entitled to a share of the profits which they helped to produce.
- 2—A desire to maintain continuity of labour throughout their organization by rewarding long service in all capacities.
- 3—A hope that the scheme would act as a positive incentive for recruiting—and keeping—good workers in an area where competition for labour was at all times intense.

It is always debatable whether profit sharing should be accepted as an "enlightened" principle with no more questions asked, or whether an attempt should be made to assess the material value of individual schemes. Although Rabones hesitate to take the latter course, they point significantly to the fact that both labour turnover and absenteeism have decreased since their scheme was introduced.

Of the goodwill which it has created among their workpeople they have no doubt—but goodwill is an asset which no company can measure precisely.

MEN of VISION

Industry Grows On His Estates

GERALD A. Mobbs might well be called a son of a man of vision as well as being one himself, for it was his father, Sir A. Noel Mobbs, who, with two or three other men, was responsible for starting the Slough Trading Estate. Gerald—who occupies the positions of joint general manager of Slough Estates, Ltd., and joint managing director of Slough Estates (London), Ltd.—has been with the organization since completing his education and has been responsible for a number of developments connected with it.

On joining the firm in 1931, Mr. Mobbs' first job was to go to the Birmingham Factory Centre, the development of which followed the success of the Slough Trading Estate which had been started some 10 years earlier. The primary task was to extend and promote the estate which at that time was quite small. He started by going round all the estate agents in the Midlands, making himself known, and asking them to pass on any enquiries they received for factory premises. At first the going was hard as the country was only just beginning to shake off the worst of the depression, but later it became considerably easier.

Aiding Small Firms

Mr. Mobbs remained at King's Norton until the outbreak of war when he volunteered for the Army. After serving in the R.A.O.C., he joined the Airborne Forces and had the misfortune to be wounded and taken prisoner at Arnhem. Returning to England at the end of hostilities he once more became a civilian in October, 1945, and rejoined Slough Estates as a director.

The next stage in the progress of the firm was the formation



GERALD A. MOBBS
His formula: pick your man

of a London headquarters. This was Mr. Mobbs' immediate task and suitable premises were found—the former Bath Club in Berkeley Street—and converted. The main purpose of this London centre was to act as a showroom for overseas visitors where they could see many of the products produced by firms on the estate. This would help manufacturers to export their products. In particular it would help the smaller firm whose resources for showmanship were restricted.

The showroom is, however, only one feature of the London headquarters and in addition there are offices, conference rooms and board rooms which can be leased by the day, or week or longer periods. Another amenity is a licensed club with its own restaurant and private rooms.

Estate firms anxious to increase their exports can also draw on a complete export marketing organization.

In the earlier stages of its development, Mr. Mobbs had to sell the idea of the London centre to the estate firms, but it has now proved to be a popular and successful feature of the company's activities. At present

about 50 firms are making use of the London centre—some using one facility and some another.

At the same time as he was translating ideas into accomplished fact in Berkeley Street, Mr. Mobbs was also involved in the development of the Slough Industrial Health Service. This service, of which he is now honorary treasurer, has been a great success. It was started with the intention of trying to cut down absenteeism of employees of firms on the estate. When men went sick they frequently waited hours at hospitals or in doctors' surgeries, and to reduce this lost time they started the health service which enabled workers to get treatment on the estate.

Besides static clinics, there were also mobile dressing stations and between them, these facilities covered the whole estate. The scheme aroused great interest when it was started and was described in *BUSINESS*. It is quite obvious when talking to Mr. Mobbs that this work has a great appeal for him and he is enthusiastic about its activities and success. More recently a large house has been bought at Farnham Royal and turned into a convalescent home and recuperative workshops.

Health Team

Another development which was associated with Mr. Mobbs was the introduction of an occupational hygiene team consisting of a doctor and an engineer. Their purpose was to help estate firms to track down and solve occupational diseases. For instance if a firm found that it had a big increase in the number of employees complaining of headaches, the occupational hygiene team would be called in. They might find that the trouble was due to an increase in noise or bad ventilation. Having traced the cause they would then look for a solution to the problem. The team's success has been such that they have been called upon by firms outside the estate.

Although not affecting the day to day activities of Mr. Mobbs, another development which concerns him is the extension of the

industrial estate idea to other countries in the Commonwealth. The ultimate objective is a string of Commonwealth estates where inter-trading will be particularly encouraged and which will be linked with the London headquarters. So far the project has been limited to Australia and Canada.

In Australia the company have purchased land near Melbourne

but this has not yet been developed. In Canada there is already a fast growing estate at Ajax, near Toronto.

When it comes down to a management policy, Mr. Mobbs has a simple formula. For him it has proved effective and it is based on selection and responsibility. In other words, pick your man carefully, give him the job and let him get on with it.

machines for producing wire heads, which are essential parts of a loom. The normal source of supply of these machines was the Continent and they were able to tap a limited, but useful, market. This was only a stopgap and they have now ceased manufacture of the machines.

By sheer hard work—most of it falling on Mr. Scholes' shoulders—sales have been built up so that they are no longer limited to supplying tools and jigs to customers in the north-east. Today, the firms on their books are located in all parts of the country and make everything from tractors to typewriters. One of Mr. Scholes' rules is to maintain customer contact and he visits each one at least once every six months.

Independence was the Spur

SOME men have always dreamt of running their own firms, some have the responsibility thrust upon them, others reach a managerial position through the process of promotion. The desire to be independent and to have his own organization came to Donald Scholes when he was in the R.A.F. This ambition has been achieved, because he is now managing director of the Dee-Kay Engineering Co., Ltd., a small—but flourishing—firm of jig and toolmakers.

The firm's history began in 1932 when it started in Shipley as a two-man partnership. One of the partners left the firm and the other sold out to Mr. Scholes in 1946. With Mr. Scholes on the board are his two brothers, but they are not working directors; their interest is mainly financial.

Mr. Scholes' previous experience had been a seven-year apprenticeship with Ferranti, Ltd., two years with the same company as a technical representative, and seven years' service in the R.A.F.

In the firm he had a potential success, but there were a number of difficult problems to be overcome. The factory needed more space and equipment, sales had to be increased and additional skilled labour was required.

Re-equipping was tackled early. The company now possesses some very up-to-date machine tools and since 1946 over £20,000 has been spent for this purpose. Factory space was a greater problem. The premises had to be satisfactory to the company yet within travelling distance for employees. It was not until earlier this year that something more suitable to the company's requirements was ob-



DONALD SCHOLES
From RAF to executive desk

tained in Bingley, three miles from Shipley. Mr. Scholes would be the first to agree that the new factory is far from his ideal, but it is a step forward and in any case he had little choice.

Sales have proved to be the biggest problem that Mr. Scholes has had to face. Although there are not many contract toolmakers in the north-east, this has not made it any easier. Most firms already had established links with toolmakers and it was no easy matter to get business from these companies. Once they had an order, then Mr. Scholes could put into action his policy of producing a first-class article at a competitive price and this invariably produced satisfactory repeat business. Another policy point was that of keeping to delivery dates; this again, could only be proved by having the orders.

To keep the factory going during these early days, Mr. Scholes started making wire forming

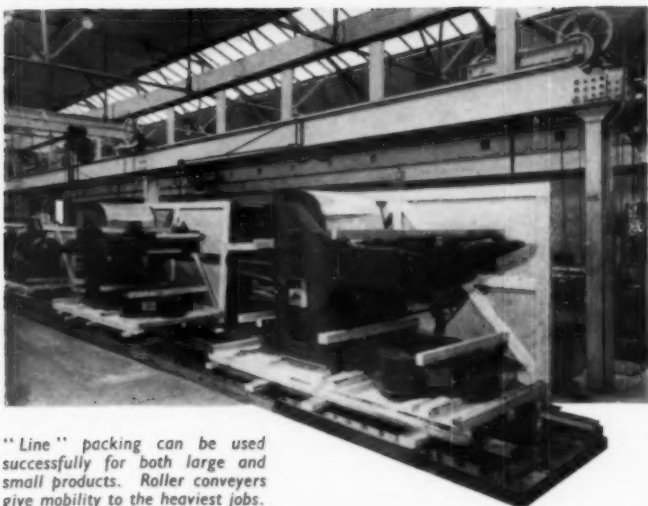
The third problem Mr. Scholes had to face was labour. In tool and jig making, a high degree of skill is required. It takes at least five years to train a man for the job and even then there is no guarantee that he will be first-class; as Mr. Scholes remarked: "Tool makers are born and not made." In an attempt to beat the labour shortage, he has instituted two things: a training section for teaching boys who join the firm at school-leaving age and a profit-sharing scheme.

Competitive prices mean that high output is necessary; skilled craftsmanship means that mechanization cannot help. To get results and good workers requires an additional incentive. Mr. Scholes took a gamble on the profit-sharing scheme providing that incentive. So far it is succeeding. It keeps the good workers and discourages the type of man who is interested only in his weekly pay packet. "With profit sharing," says Mr. Scholes, "the men take a greater interest in the job, in quality and in the customer."

The normal bonus is equal to about ten weeks' wages.

"Our destiny is largely tied up in our labour," says Mr. Scholes.

But the destiny of the Dee-Kay Engineering Co., Ltd., is also very much in the hands of Mr. Scholes—and on the present showing he is building a promising future for the firm.



"Line" packing can be used successfully for both large and small products. Roller conveyers give mobility to the heaviest jobs.

CONSIDERING the amount of money spent on packing, its scientific role in a factory is by no means sufficiently appreciated in industry.

When a new product is conceived, no self-respecting works would attempt to finalise the design of the product without first consulting all top-level managers—works manager, chief engineer, chief draughtsman and departmental managers—to ascertain their views on the probable production problems that will be involved. It may be that a certain item will require an extra press operation, or offer difficulties in the paint shop, or on the assembly floor. These will be carefully considered, and the management will ultimately decide whether to modify the design to meet production difficulties, or go ahead with the

It Pays to Plan Early for 'Packability'

By JOHN E. EVAN COOK, J.P.

*Joint Managing Director,
Evan Cook's Packers Ltd.*

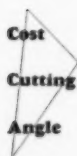
original. But how often have you heard of a packing engineer being called to give his views as to the "packability" of the product? Come to that, how often have you heard of a packing engineer?

It is this inattention to packing and, at the earlier stage, to the packability of a product, that can and does result in excessively

high charges for shipping space, costly or elaborate packing cases, and damage claims which should never arise.

Consideration of packing should enter into account at the design stage of the product itself. That means that you must have someone on the staff who is capable of expressing an intelligent opinion, both as regards (a) the difficulties of designing a pack that will reduce, minimize, or totally eliminate all possible damage to a particular product in transit and (b) the problems of carrying out the actual packing in the packing shop.

Protective packing, like the decorative sort, should not be left to one man to sort out. It should be the subject of periodic high-level conferences attended by top executives, including



Packaging should be considered at every stage of manufacture—from design to despatch. Thinking about "packability" before manufacture and incorporating an efficient packing line after final assembly will save time and money. Ingenious packaging saves shipping costs, cuts damage claims and makes for better customer relations.

11 Rules for Good Packing

- 1—*Deliver the machine to the packer clean and rust-free*
- 2—*Don't paint over rust—hiding corrosion won't prevent it spreading*
- 3—*Don't assemble precision surfaces without first cleaning and treating with a corrosion inhibitor*
- 4—*Protect the product from contamination by dirt, rust, damp and finger-prints while awaiting packing*
- 5—*Secure most products within their shipping cases so as to prevent all movement (some products, however, should be allowed some shock-absorbing motion)*
- 6—*Secure every component part of a product which could possibly break off (e.g., castings), or easily break loose (refrigerator motors)*
- 7—*Insert padding between castings and other damageable or corrodible components and the wood members of the packing case*
- 8—*Insert anti-crush stretchers in timber cases*
- 9—*Line the cases with water-proof material*
- 10—*Build the case to fit the product after dismantling as many protrusions as possible*
- 11—*Adopt skid-type internally battened construction for any timber case too heavy to man-handle. It makes the case more rigid, assists in slinging and facilitates dragging where that may be necessary overseas.*

someone with the knowledge and ability to represent package engineering.

The draughtsman or designer of the product can do a lot, for instance, to streamline products and economize in shipping space. A slight redesign will often eliminate protrusions which take up precious inches in packing cases, such as electric motors and fans, tubes and control valves, hoppers and brackets, superimposed on the profile of a machine proper. Space-wasting, too, are all-welded structures that cannot be dismantled (e.g., those with four legs surrounding 90 per cent air which is charged by the shipping company at exactly the same rate as it would be if it contained something useful.)

I will now go into a little detail under the heading: "Where and when to do the packing."

All forms of packing have this in common—they should, as far as possible, be organized and mechanized, and to the greatest possible extent geared in with production. The sooner a product is protected in its pack, the better.

The ideal to aim at is that of incorporating packing in the production flow, say, as the final stage of production, or as the very next operation, with the least possible gap—physically or in time—between them.

Goods should not go into store before they have been preserved, protected and packed. Certainly no component part, sub-assembly or complete assembled product should go into store until it has been given at least some form of preservative treatment.

Early protection in the factory is important for the following reasons:—

- 1.—To avoid damage and deterioration to the goods while in store.
- 2.—To avoid unnecessary transport and handling in the works.
- 3.—As a safeguard against petty pilferage.
- 4.—As a factor in increasing output efficiency.
- 5.—As a safeguard against "hidden damage" which does not show until the goods reach the buyer.

Length of storage in the fac-

tory is important. Obviously much more can happen in five months than in five days. This should be duly considered in relation to all other factors.

Next comes the business of protecting the goods from mechanical damage or breakage during the remainder of their stay in the works. The greatest single step towards this desirable end is to pack the goods as quickly

IN DETAIL

A practical survey of the technique of packing, by the author of this article, appeared in **BUSINESS** last month. It described in detail methods and materials applicable to many manufactures.

as possible the moment "final inspection" have finished with them.

The ideal packing plant is one where cleanliness and order prevail. Things to avoid are: packing materials and rubbish littering the floor; wet raincoats laid on materials or even on the goods themselves; expensive products standing on bare floors, collecting dirt and damp which will do much harm later, and clouds of sawdust or any other dust settling on the goods. They will collect damp and breed rust or other forms of deterioration.

Skilled Jobs

The packer himself must also be regarded, rightly, as a skilled operative to whom the goods should be brought—and not someone who has to do his own foraging. Goods and packing materials should meet in a planned flow, never getting mixed and always reaching the point of packing within arm's reach of the packer.

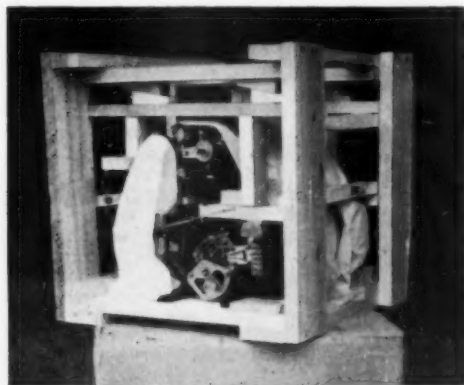
If space or layout permit, I favour the flow of materials at

right angles to the flow of products, the latter entering the packing lines at ground floor level and the packing materials reaching the same point by overhead feed, e.g., overhead platforms. This system is not difficult or costly to install. Here is the procedure:

Layout Plan

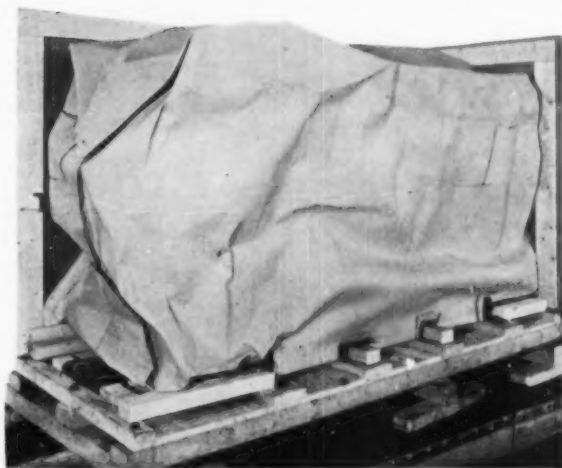
At one end of the building, arrange the means of entry for the products to be packed, together with a reception, sorting and feed-marshalling area. From it, construct as many conveyer packing lines as are required down the length of the shop to the despatch or transport bay. Then, from the sides of the shop, throw a low bridge or platform over the intake end of the packing lines with chutes running down from the platform to each packing line. Incoming packing materials and containers can be fed from the sides of the shop on to the platform and moved along on roller conveyers. Replenishment of supplies on the platform can go on all day without interfering with packing or the receipt of products for packing. One or two storemen feeders can run the platform, sending down the required materials as the packers below call for them.

On the packing lines themselves, overhead hoppers, brackets, etc., should be provided to carry the materials needed during packing; and alongside the line can be positioned specialized equipment, stencilling outfits, steel strapping and nails, etc.



PROTECTION (2) : Check the "packability" of the product—fragile machines like this need a supporting framework in the outer casing

PROTECTION (1) : Give your product the protection it needs. This diesel-electric alternator is enclosed in a floating pack with air exhausted



There should be well-defined stations along the line where specific operations are carried out, starting with insertion of water-proof liners and the products themselves at the bottom of the chute, and continuing by stages along the conveyor to the lid-sealing station, steel strapping, stencilling, etc. A twin conveyer enables two operatives to work facing each other.

Constant Flow

On these lines you can even engage in the packing of small machines and similar items with built-in fitments. By breaking up the packing into as many

operations as may be needed, there is constant flow and all cases reach the end of the line completely packed.

Heavy packing requires a somewhat different layout, based on the use of overhead lifting tackle. I still adhere, however, to the principle of a "line" for all packing, and advocate the use of roller conveyers, on the floor itself, to give mobility even to the heaviest of jobs. The overhead materials feed platform may no longer be possible, but stick to the principle of having all materials near at hand and proper reception and marshalling areas for incoming products at one end of the shop, with storage zones for materials at the sides.

Never go in for the appalling muddle of a mixed reception area for both. The immediate vicinity of the packing lines should not be used for storage, but only for reception of the day's materials.

Well-ventilated storage space, free from damp of any type, is also essential for products after packing. Allow the air to circulate freely. The use of pallets or stillages helps—apart from their well-known advantages in facilitating transport, handling and stacking—in keeping goods off the floor and free from contact with rising damp.

Where products vary in size, weight and value, the measurement of output for production control purposes is difficult. This article explains in practical terms how statistical techniques are used to solve the problem.

How Operational Research Aids Production Control

By STAFFORD BEER

Production Controller, Samuel Fox & Co. Ltd.

THE first thing needed in production control is a picture of the situation which has to be controlled. A simple flow diagram can be made which will suffice for any sort of manufacture (see example on this page).

This flow diagram moves to the right if an assembled product is involved (e.g., a motor car), or to the left if a broken-down product is involved (e.g., a diversity of finished shapes from a steel ingot).

The first requirement for discussing this situation is a measure of output at each of the dots. It does not matter whether material is going into the system at these points, or coming out. It does not matter whether the dots represent individual jobs, or small batches, or large batches. Further, although the dots indicate different sorts of things, the measure of output must describe them all.

Wherever the data of output are commensurable, the product's own characteristics provide a suitable measure. For example, actual numbers of small components produced on batteries of automatic machines, or the weight of pig-iron, or the volume of ice-cream, might constitute satisfactory measures. Sometimes, particularly where long-term projects are concerned, monetary measures may be used: the costs, or the turnover, or the

profits of a shipbuilder, for instance, may measure an output which is unrelated to numbers launched irrespective of size, or to tonnage completed irrespective of type.

In a factory, however, where plant is varied (and production may follow alternative routes on completely different types of machine), or in a factory where products are mixed (and work is not largely repetitive), serious difficulties arise in trying to relate products by any of these obvious measures of output.

The scheme we are now considering was devised to include factories in which both these limitations apply. The data of output for the continuous processing of steel once cast (for example, through a rolling mill) cannot be compared by numbers produced, because the units may differ in size in an almost infinite number of ways. They cannot be compared by weight-put-through, because this is a function of cross-sectional area; or by volume, because this is related to

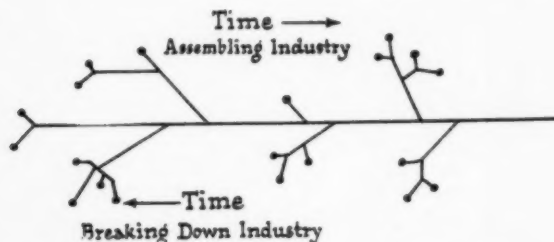
the number of units produced. Finally, they cannot be compared by monetary measures, because cost and value depend on varying analyses and conditions in the product, the effects of which are highly important in the short-term divisions of a detailed analysis. Such diversification of a factory's output and machinery lies at the root of our control difficulties.

There is only one unit of output measure which can be universally applied to the picture of production just given. This is time itself. We shall say that machine *x* produces $3\frac{1}{2}$ hours of job *y*. This gives a uniform measure for any function, and enables the picture of production to be made firm. If (and it is a very big "if") we know how long any job will actually take, then we can crystallize this picture by fixing the position of each dot in the diagram.

Three 'Sorts of Time'

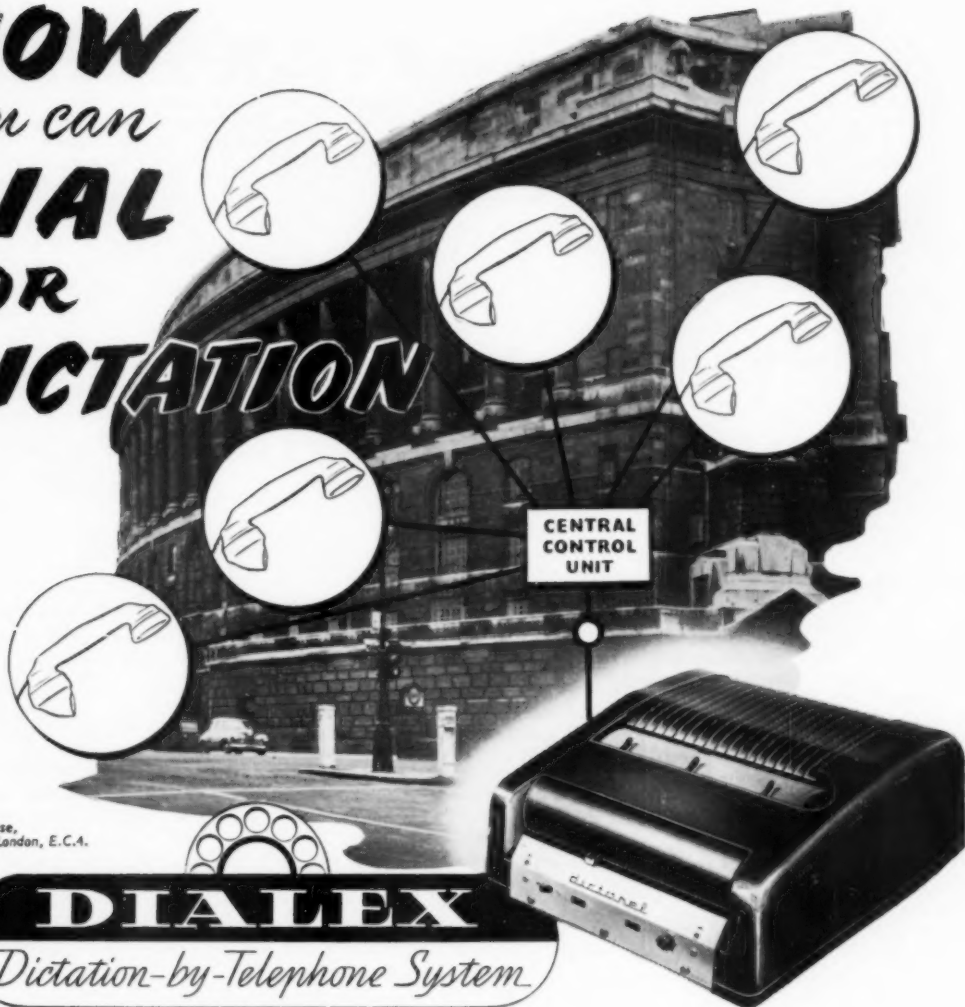
1 One must, however, discriminate between three "sorts of time." Firstly, there is "objective time." This represents output at an ultimate level of efficiency; it supposes that machinery will run at its optimum speed, that losses from handling and maintenance will be at this theoretical minimum, and that everyone works as if competing for a prize. This is the ideal; the 100 per cent productivity at which everyone aims.

2 Secondly, there is "standard time." This is still a calculated figure, a diluted "objec-



Simple two-way production flow diagram, applicable to any manufacture

NOW you can DIAL FOR DICTATION



Unilever House,
Blackfriars, London, E.C.4.

DIALEX

Dictation-by-Telephone System

PATENTS APPLIED FOR

The greatest advance ever known in office efficiency is achieved by the DIALEX Dictation-by-Telephone System. Instead of every executive having his own dictating machine, which he may use for only a small part of the day, it is now possible for one machine to serve as many as six people, even if they work in entirely different parts of the building.

DIALEX brings to any sized organisation all the advantages of mechanical dictation at a far lower cost than ever before possible.

The DICTOREL Magnetic Dictating Unit, may be located in the typing pool, and is connected to each executive's desk through the EXISTING *INTERNAL TELEPHONE SYSTEM. NO ALTERATION TO EXISTING INTERNAL TELEPHONES OR WIRING IS NECESSARY.

The dictator has the same control and facilities as if the dictating machine were on his desk. British in concept and design, this system, developed by Unilever Limited and The Trevor-Johnstone Company Limited, is now in use at Unilever House, London, E.C.4.

*The DIALEX Dictation-by-Telephone System can be used with equal efficiency in conjunction with any recognised make of intercommunicating telephones.

Enquiries should be addressed to the Sole Manufacturers.

THE TREVOR-JOHNSTONE COMPANY LIMITED

Head Office and Showrooms: 14, BERKELEY ST., PICCADILLY, LONDON, W.1.

Phone: GRO 3871 (5 lines)

Technical Development and Service Depts: 169-174, SLOANE STREET, KNIGHTSBRIDGE, LONDON, S.W.1. Phone: SLOane 6198 and 8470

Works: Knightsbridge, London, S.W.1. SLOane 9777. Area Offices: MANCHESTER · LEEDS · BIRMINGHAM · BRISTOL · DUBLIN · GLASGOW

tive." It represents output at an immediately attainable level. Machine speeds will be those which can be presently obtained. Allowances for handling and maintenance will not be liberal, but will be realistic possibilities over a whole shift's effort; people will be assumed to work at a good rating which can be sustained. This is the immediate target. The difference between objective and standard times is purely a measure of technical inability to achieve its ideal at the moment.

3 The third "actual," time is the average result of operations which have been done. Since all the technical losses have been allowed for in the "standard," any difference between "standard" and "actual" measures slackness; the extent to which output is less than it easily could have been.

The Mathematical Model

In order to complete the picture of the controlled situation, we have to obtain an insight into what is happening at each of the dots. This can be done by one of the most useful techniques of operational research; that is, by constructing a mathematical model of the process.

It is not much use constructing a model in terms of "actual" time, because actuals are difficult to measure in all their parts (it would involve very lengthy time study), and because actuals are by definition liable to constant change. But an objective and a standard model can be constructed without very great difficulty.

I will illustrate this with a genuine example, taken from the manufacture of cold-rolled steel strip. (This is a product of which my company is rather proud, as we are actually exporting it, for the manufacture of razor blades, to America). Steel strip is manufactured in large coils. These are put through a number of processes, in the majority of which the coil is mounted on a machine, passed through that machine either once or several times, and then removed.

The total length of a number of coils in inches will be given by their weight in lb. (w) divided by the density (d) of the steel

and the cross-sectional area ($b \times g$) of the strip. That is:

$$l = \frac{w}{12dbg} \text{ feet}$$

Divide this by the speed of the machine (v), and that is the time it will take to pass the batch of coils through once. Multiply it by the number of passes (p) necessary and this:

$$t_r = p \left(\frac{w}{12dbgv} \right)$$

will be the total time that the batch of coils is running through the machine to complete that particular process. If there is a certain handling-time (h) associated with each pass, this time duly multiplied by the number of passes in the process (p) and the number of coils (c) involved must be added ($+c h p$). So long as all these factors are objectively defined, the resulting expression is the objective time for any job:

$$t_o = p \left(\frac{w}{12dbgv} \right) + chp + ch$$

A similar expression may be obtained by modifying the objective factors (designated "prime"), and adding an allowance (z) for the regular technical stoppages which are accepted in the present state of technological progress as associated with each coil ($+zc$), plus a proportion (Z) allowed for each batch of the total irregular stoppage time (e.g., breakdowns). Thus the standard time is:

$$t_s = p' \left(\frac{w}{12dbgv'} \right) + ch'p' + ch' + zc + Z$$

(Slight modifications in these expressions are necessary in practice to compensate for time losses due to acceleration and deceleration.)

The factors required for calculating results from these models must be obtained by operational research. Authoritative views must be taken from engineers, research people, and managers, in building schedules of such quantities as machine speeds and numbers of passes. Then the allowances in the standard formula are obtained by statistical analysis.

For example, by recording all the stoppages, their reasons, their duration, and their interval, it is possible to construct a mathematical model for stoppages also,

and to apply that model to this one. Handling times may have to be measured by time study; but I emphasize here that we are dealing with two situations which are not finally realistic in shop-floor terms. We are, as yet, conducting an analysis of a static hypothetical, and not of a dynamic actual, situation.

That analysis is, in fact, complete. The picture of production is now fully detailed for viewing production in terms of either objective or standard output. Having given this specific example of a model, may I remind you that we are developing a

About the Author

Mr. Beer, as Production Controller of Samuel Fox & Co., Ltd., has had wide experience in the application of statistical techniques to production control. He is the author of several books on the subject.

—and his Firm

Samuel Fox & Co., Ltd., well-known and long-established company in the United Steel Company's Group, have recently obtained the contract for supplying razor-blade steel to the Gillette Company of America.

general theory, and that as far as I know any factory can be described in this way.

Insight into actuality can now be obtained by statistical analysis of current production as compared with the two models. Job by job, we build up groups of calculated/actual ratios: productivity indices of the form suggested by Messrs. Joseph Lucas*. These provide not only a measure of efficiency, but the basis of a forecasting system. To forecast an actual time, the time calculated from the models is adjusted by its appropriate (statistically standardized) index, which is kept up-to-date.

A chart, which is easy to use, permits the calculation of both objective and standard times as well as the statistical forecast of actual time—all in less than a minute. Uses of such an instrument in production control are virtually limitless.

*Described in *Productivity Measurement in British Industry*, published by the Anglo-American Council on Productivity.

Pay your Wage Bill

in **HALF** the **TIME**

at **HALF** the **COST**

with **NO MISTAKES**

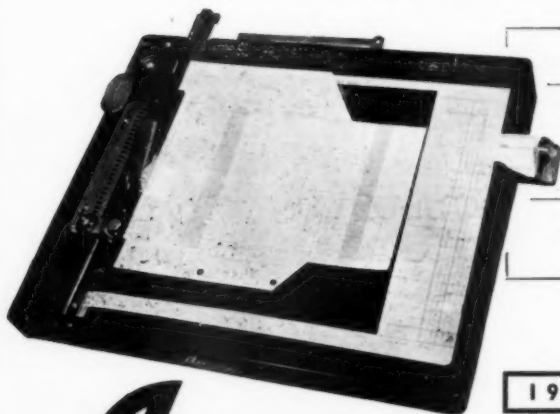
Streamline your wages system with the ANSON P.A.Y.E. Machine. Out-dated methods of making separate entries on P.9 Tax Cards, Wage Books and Wage envelopes are time-wasting and costly.

NOW, with the aid of an ANSON, your wage clerk can make all essential entries in 60 seconds on Wage Sheet, Pay Slip and Tax Card. The machine does not involve fuss or bother with perforated slips. Transcription errors are entirely eliminated and there is a time saving of 65%. You can soon calculate the saving in COST!

The ANSON does not require specially trained operators—your own staff can learn to use it in a few minutes. And no maintenance is necessary.

"Difficult" and complicated Payrolls can be simplified with ANSON at once, eliminating unproductive entries and form filling. Whether you deal with 30 or 3,000 employees, there is an ANSON specimen readily available to suit your particular requirements.

One ANSON will do the work of three wage clerks in half the time.



Exclusive Features of the ANSON

- ★ NO PERFORATED STRIPS
- ★ AUTOMATIC ALIGNMENT
- ★ SPECIAL MAGAZINE to hold 150 PAYSLIPS at a time

ANSON

equally effective for
ledger work and receipts

ANSON enquiry form

1954

GEORGE ANSON & CO. LTD.

Anson House, 58 Southwark Bridge Road, London, S.E.1.
Tel.: WATERLOO 3746/9.

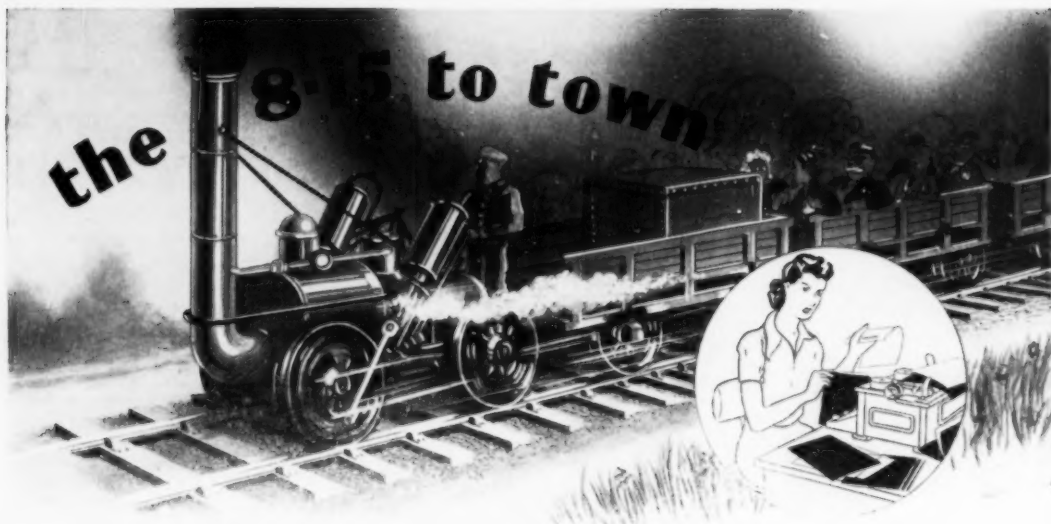
Please send full details of the ANSON Payroll Machine without obligation.

NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

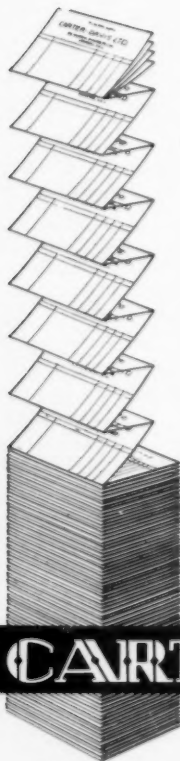
Approx. no. employees _____



MAYBE would get there—sometime—but we are afraid it just wouldn't do for the business man of to-day. Although probably not so striking, typing methods, too, have undergone a revolutionary change.

One has hardly to look around the modern office to note the vast strides that have been made—and yet—there are still typists to-day who are compelled to work to out-of-date ideas. "PRIMUS" Continuous Stationery has replaced the out-of-date unproductive operations previously carried out in the office—interleaving and extracting loose carbon sheets, inserting and aligning separate stationery forms, etc.

"PRIMUS" saves **ONE HOUR IN EVERY THREE** on invoicing, works orders, goods received notes, purchase orders and other tasks of a repetitive nature. With the simple attachment, "PRIMUS" forms can be used on any make of typewriter. The smooth feeding of the forms into the machine assures that the typist is engaged **ALL** the time on productive work.



PRIMUS Continuous Stationery

THE PRIMUS STANDARD REGISTER

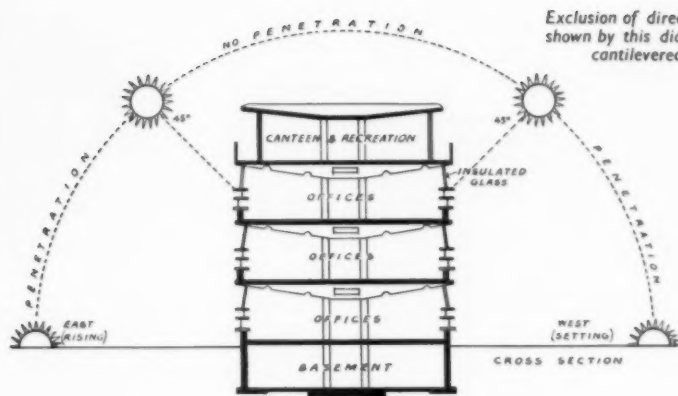
For **HAND-WRITTEN RECORDS**, the Primus Register used in conjunction with Continuous Stationery ensures the same speedy smooth operation, while a copy automatically locked in the machine provides your auditor with a check on each transaction.



CARTIER-DAVIS LTD.

QUEEN ELIZABETH STREET • LONDON S.E.1.
TEL: HOP 0204-5-6.

Branches at: BIRMINGHAM - MANCHESTER - DUBLIN - GLASGOW



This article shows how full consideration of functional requirements at the design stage produced an office building which combines reasonable first cost with high working efficiency, flexible layout, low running costs and excellent appearance

Novel Office Design Gives

AS the first building to be erected in the commercial centre of the new town of Hemel Hempstead, Hertfordshire, the new offices of Sir Robert McAlpine and Sons, Ltd., had to comply with stringent planning regulations—and had to be worthy of the setting. The building is of particular interest for a number of other reasons. Chief of these is the provision that the architect (Maurice H. J. Bebb, L.R.I.B.A., A.I.A.A.), has made for adequate natural lighting. He feels very strongly that most office workers are forced to work in inadequate daylight, and to ensure that this was not the case in the new building he adopted a form of cantilever construction which was new to this country.

Another important consideration was that all services should be so arranged that they were easily accessible both for use and for maintenance. The cantilever construction also makes this possible.

Although McAlpine are a very large company—and, as constructional engineers, were able to do the work themselves—capital cost of the building was not lavish. On the contrary, reasonable standards of austerity were observed throughout and maximum efficiency within given budget limits was the subject of careful planning.

Housed in the building are the accounting sections of the firm

- MAXIMUM DAYLIGHTING
- MINIMUM MAINTENANCE
- REASONABLE FIRST COST

and some of the drawing and design offices.

The building is placed longitudinally on its site and not along the road frontage as in normal practice. As a result, it faces east and west and gets much more satisfactory light; had it been conventionally placed, the light would have been 50 per cent north and south.

Functional considerations largely governed the design

By FRANK G. CASEY

and the building's contemporary appearance stems from the fact that it was constructed to serve a particular purpose in the most efficient way.

There are four floors and a basement. The three upper floors are cantilevered out from columns arranged in two rows, one on either side of a central corridor which runs through the building from north to south. The cantilever beams and their supporting columns were precast in reinforced concrete and

hoisted into position by crane—a method of construction found to be both quick and economical.

The beams are wedge-shaped and their undersides form a sloping surface to which was attached a false ceiling of insulation board. These sloping ceilings reduce the level of noise where accounting machines and typewriters are used; they also reflect downwards the light coming through the windows.

In the cavity between each ceiling and the concrete floor above are the ventilation ducting, heating pipework and electric wiring. Removable panels give easy access to these services. There is also a void over the central corridor which serves a similar purpose; this is equipped with a walk-way as well as access hatches.

In this type of construction, the outside walls have no structural load-carrying function—the brick facings are purely decorative. Glazing can therefore be used freely and extensively—in fact, it amounts to



COMFORT is ensured by excellent daylighting without glare or heat, draughtless ventilation and sound-deadening ceilings

it enters and is carried upwards. Free circulation of fresh air is thus achieved without draughts. Since the opening of the windows is controlled from a single point and cannot be interfered with by individuals, proper functioning of the heating thermostats is ensured.

On the south side, which receives light from the sun in its highest position, almost the whole elevation is occupied by egg-crate glazing. Most of the drawing offices which need the best light, are on this side. Here, alternate panes of glass hinge inwards for ventilation.

The north elevation is the only one which gets comparatively little light and the layout has been designed so that there are no offices on that side.

Arrangements for admitting daylight have proved very successful and the level of light is almost constant throughout the working area. Even in dull weather it is quite practicable to work without switching on the lights, which results in a considerable saving in the course of a year.

Artificial lighting throughout the building is provided by tungsten fittings, partly recessed in the false ceilings. In addition, draughtsmen are provided with desk lamps. The ceiling lights

give a level of 15 foot candles at desk height over the whole floor area. This is made possible by keeping the level of the plastered breeze-block partitions in the general offices below 6½ft.

General arrangement of the floors is as follows:

The entrance, reception hall and main staircase (which is of open form and lighted by a three-storeys-high metal-framed window) are offset towards the south end. A separate staircase runs from entrance hall to basement. Ample room is provided here for the storage of stationery and documents in rooms fitted with shelves and racks. There is also a locker room fitted with steel cupboards in which the office workers keep their outdoor clothes.

Heating Plant

The oil-fired heating plant and its fuel storage tanks are also in the basement. The plant is designed so that it can be changed over to solid fuel if necessary and an ash hoist and coke store are built in to meet such an emergency.

The ground, first and second floors are roughly similar in layout. To the right of the staircase are private and drawing offices, whilst to the left on either side of the central corridor are

over 40 per cent of the floor area.

A special system designed by Mr. Bebb allows maximum daylight penetration whilst excluding the glare and heat of the sun in summer. Each floor has two runs of clear glazing for most of its length on the east and west sides. The individual panes, which cannot be opened, are set in a grid of three-inch deep concrete members in "egg-crate" fashion. The effect of this arrangement is that direct sunshine cannot penetrate when it strikes the windows at an angle of elevation greater than 45 deg. (see diagram). In the three summer months, the sun's elevation is higher than this between about 10 a.m. and 4 p.m., but in winter it is much lower and deep penetration then occurs.

Immediately above the egg-crate windows is a sloped run of metal-framed glazing which opens in continuous lengths for ventilation. The panes are of special *Plyglass*, which consists of a layer of glass wool sandwiched between two layers of glass. This material diffuses sunlight, thus eliminating glare; it also drastically reduces solar heat.

All fresh air enters the offices through these windows at a height of at least 6½ft. As the central-heating radiators are placed immediately below the window-ledges, air is warmed as

SUNSHADE: Under this reinforced-concrete canopy, workers can relax in comfort after lunch in the open air

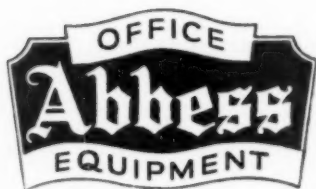


*AND CHAIR TOO,
There's an Abbess Desk for
Everyone
in your
office*



Model 6850

The two models illustrated are from our "Export" range and have many interesting features. The desk, for example, has the Abbess "Pre-eminent" (regd.) non-flex top, whilst the chair has a patented revolving action especially designed for comfort.



Let us forward you an illustrated brochure giving further particulars and details of the complete range.

ABBOTT BROS. (SOUTHALL)

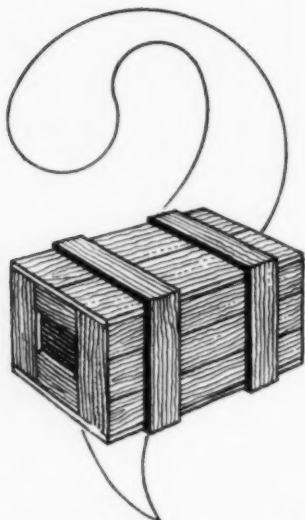
ABBESS WORKS, SOUTHALL, MIDDLESEX

Telephone: Southall 1357 (5 lines)



Model 608m

The NAME on your desk means a lot to you



Will it get there all right?



DESIGNED PACKING Delivers the goods intact

Why designed? Because only by a *scientific* approach to problems of packing and preservation can *effective* yet *economic* protection be afforded to goods for transit and storage at home or abroad.

Correct design therefore is at the base of all E.P.S.

work, whether for small contracts or complete outputs, backed up by the fullest mass-production packing facilities in all departments. Export Packing Service Ltd. are specialists in the packing of all costly, delicate and "difficult" articles, and in packing to Government standards.

- 4 well placed packing centres, providing 400,000 sq. ft. of covered packing space.
- Road, rail, air and port facilities, Fleet of specialised road transport vehicles.
- Design and Development Sections specialising in packs for different industries. Prototype Departments and advanced testing facilities.



- Fullest Production Packing facilities, including Saw Mills, Case and Carton making factories, Cushioning material plant, Engineering Shops, Label printing departments.
- Preservation Departments including all the latest processes. Plastic Spray Coating.
- Shipping and Forwarding Departments.

EXPORT PACKING SERVICE LIMITED

Imperial Buildings, 56 Kingsway, London, W.C.2

Phone: CHA 5121/2/3

And at Cardiff - Banbury - Merthyr Tydfil - Sittingbourne



general offices divided by partitions, most of which are about head-high. Beyond these, at the north end of the building, are grouped the lavatories and wash-rooms, cleaners' stores, service lift and staircase, etc. At present there is no passenger lift, but a shaft was provided near the main staircase in case one should be required.

The top floor is devoted almost entirely to a canteen and recreation and games rooms. There is also an attractive sun lounge and a promenade that runs right around the top floor. Both of these are covered by a reinforced concrete canopy which is an extension of the roof. Rain-water is drained through pipes which run inside the building; all plumbing outlets are also internal, leaving the outside walls clear of such ugly obstructions.

Flexibility

The interior arrangement of the rooms and offices is very flexible. Because there are no structural pillars or walls inside the offices or round the perimeter, the breeze and plaster partitions can be sited or demolished and resited with complete freedom.

Services are so arranged that power, internal and external telephones, electric light, etc., are available at any point. Telephone and power cables are housed in a metal skirting running round the foot of the outer walls on each floor; outlet plugs can be fixed wherever they are

AESTHETIC appeal of the building can be judged from this picture. Note the 'eggcrate' and continuous Ply-glass windows

FUNCTIONAL light-passing qualities of the windows are obvious from this view of the offices by night



required. In addition, pressed steel conduits are laid in the floor screed, the concrete of which was left deliberately weak so that tappings could easily be made if it became necessary to position machines in the middle of a floor.

Colour scheme of the offices was designed by the British Colour Council, who took into account the function and orientation of the different rooms. Floors are covered in heavy-duty linoleum coloured to match the schemes of individual offices.

To allow for future expansion, the architect provided more accommodation than was actually needed. About a hundred people at present occupy the building but there is probably room for nearly as many again.

An interesting point is the low cost of heating the building and providing domestic hot water. Fuel bills average about £18 a week. Efficient woodwool insu-

lation on the inner surfaces of outside walls cuts heat losses and contributes to this economy.

Another money-saving point which other firms might find useful is that McAlpine put only a temporary finish on interior walls and woodwork. Every new building tends to settle slightly during its first year or so of life and small cracks appear in plaster, etc. If the permanent finish is applied immediately, it will probably have to be renewed in 12 months or so, but if it is not applied until after the settling process is complete it will last much longer.

The Building Research Station have carried out an independent survey of the natural lighting of the new building which extended over 12 months and their findings show that everything attempted in the design has been achieved. That this functional efficiency is combined with an attractive architectural appearance most people would agree.

Developing a complete programme of job evaluation is a complex task, particularly where many different types of job are involved. By combining two systems, the sales and distribution organization of Kodak Ltd. produced a programme which specifically suited their own needs yet made full use of the experience of other companies.

BEING original is not, in itself a virtue. This fact was borne in mind during the development of the job evaluation programme which has been applied to clerical jobs in the sales and distribution organization of Kodak, Ltd. The personnel department, undertaking this work at the end of 1946, realized that any method of evaluation would succeed only if its findings were recognizably fairer than arbitrary assessments of jobs by individuals.

The size of the task which faced the department is indicated by the fact that about 500 different jobs performed by nearly 1,300 employees have now been covered.

Even during 1946, steps had been taken to smooth out obvious salary anomalies resulting from war conditions and to deal as equitably as possible with the problems of reinstating ex-Servicemen. Now the task was to look ahead and to consider the requirements of a programme which would not easily be outdated by any changes in organization or other factors.

The terms of reference were clearly defined: to set fair values on all jobs in the various departments and to establish an equally fair relationship between these and similar jobs in other organizations. At the same time, the programme had to take into account the merit of individual employees and—to be realistic—the market value of certain types of clerical labour. This meant that job structure and salary structure had to be treated separately.

The department decided to base the programme on a system

of evaluation by points which was being used by the Eastman-Kodak company in America, with the ultimate aims of dividing all jobs in a certain number of grades and attaching to each grade an equitable salary range.

Because the points system depended on the careful analysis of individual jobs by one person, the programme's development extended over a period of two years. This was, in some ways, an advantage, as it was realized that any attempt to over-sell a method of evaluation as "scientific" before its dependability had been established would jeopardize the whole programme.

By March, 1949, the job evaluator—a man with considerable experience of the organization's activities—had produced detailed descriptions of about 200 different clerical jobs, and the department had sufficient confidence in its methods to lay

down a definite procedure for use in all other cases.

At that stage, however, an important change was made; a change indicating the flexibility needed in dealing with such a difficult subject. Rather than attempt to draw up an entirely new method of classification based on points values, the department recommended the adoption, in a slightly modified form, of the job grading schedule issued by the Office Management Association, but retaining the principle of points evaluation.

This marriage of two systems was arranged deliberately. While aiming to produce a programme specifically suited to the needs of their own organization, the department had also recognized the danger that some of its characteristics might turn out to be just as arbitrary as those which the programme aimed to displace.

The O.M.A. schedule, representing the ideas of many com-

JOB GRADING		
KODAK LIMITED (SALES AND		
GRADE A	GRADE B	GRADE C
50-175 pts. Very simple tasks of a largely physical nature. Letter folding, sorting, running messages. (Normally for 1 or 2 years after school leaving age)	150-275 pts. Simple copying and making of entries from original documents. Tasks requiring the knowledge of a small number of clearly defined rules. A daily routine covered by time-table and short period control. Simple operations requiring some individual training and/or manual dexterity. Responsibility constantly checked	CL 250-375 pts. Similar to Grade B work, but involving a more advanced degree of skill, a greater number of rules, more complicated routine, accuracy and alertness needed. Maintenance of master records and indexes of all kinds. Checking of direct information with reference to authentic records. 350-475 pts.

How Points Values Help to Grade Clerical Jobs

By ALAN PETERS

SCHEDULE

DISTRIBUTION ORGANISATION

GRADE D	GRADE E	GRADE F
0-600 pts. Dependent arrangement work calling for the exercise of some initiative where little supervision is needed due to the nature of the work.	E1 575-725 pts. More important work still based on a regular cycle of tasks, but involving the co-ordination of several lower grade functions. Routine work involving individual knowledge or special personal requirements. Carrying individual responsibility with little supervision.	F1 1000-1175 pts. Assistant Supervisors and Supervisors responsible for a small section engaged in simple routine work. At the same time may carry out an individual function. Also specialist functions accounting, statistical, secretarial, technical, etc. subject to little supervision, and that only of a very general nature. Must have analytical ability to handle problems outside rules and precedents. Training experience and background extending over several years is necessary.
ties demanding accuracy and detailed thoroughness with one more branches of established procedure.	E2 700-875 pts. Routine work as above but involving some measure of control over a small group of staff and answering non-routine queries.	F2 1150-1325 pts. Supervisors of the larger sections engaged on Must be fully alloc-

panies over a period of years, broadened their outlook, and overcame the necessity to set more or less arbitrary values on different types of work.

From this period of development had emerged the two structures which are incorporated in the organization today. These are:—

Job Structure

1—All clerical jobs below managerial level are divided into 12 grades.

2—Following the O.M.A. schedule, the main grades (illustrated on these pages are designated by the letters A to F. Kodak, however, have subdivided Grade C into two, Grade E into three, and Grade F into four.

3—The grading of jobs depends on two factors, each cross-checking the other:—(a) points evaluation; (b) the O.M.A. classification of duties.

Salary Structure

1—Each grade has its own salary range, the variation between maximum and minimum being about 15 per cent.

2—These ranges overlap. An excellent worker in any one grade can earn more than a "just acceptable" worker in the next grade above.

3—The point in the appropriate range at which an adult worker's salary is fixed depends

on his or her performance. Age and length of service are not normally taken into consideration; there is no automatic progression to the maximum.

The above descriptions indicate that the salary structure operates—intentionally—in much the same way as merit payment schemes for manual workers in other branches of the company.

At the heart of the job structure is the points evaluation system, which enables finer comparisons to be made of jobs in the same "family" group. In assessing the points value the characteristics of each job are considered under seven factor headings:—

SKILL	Max. no. of points
1—Job knowledge	450
2—Analysis and initiative	600
3—Personal requirements	300
RESPONSIBILITY	
4—Leadership	325
5—Responsibility for cost and service	260
6—Accuracy and dependability	65
APPLICATION	
7—Application (a) mental (b) physical	100
	2100

The points "weighing" takes into account the liability of factors to overlap. This explains why the maximum for "accuracy and dependability" is as low as 65; many of the job characteristics normally associated with this

factor are also considered under other headings.

To make sure that a "standard" test is applied in all cases, the factors are defined as precisely as possible. Typical is this definition of "application and working conditions":—

"Consideration of the degree and continuity of mental and physical application required by the job: the pressure of work and the degree of sustained mental and visual concentration necessary. Consideration also of the extent to which manual dexterity needed to be co-ordinated with mental and visual concentration; also any disagreeable conditions outside the control of the employee but affecting mental and physical comfort."

In this form, the points system was introduced when the evaluation programme began. After a few months, however, it was realized that the factor breakdown was too imprecise to achieve accurate results in all cases, and it was decided to amend it in the light of the experience already gained.

Amendments

"Job knowledge," for example, was divided into three sub-factors — "fundamental skill," "professional knowledge and experience," and "company knowledge and experience" — each carrying a maximum of 150 points. These sub-factors, in turn, were broken down into five stages: (a) very elementary; (b) fairly elementary; (c) moderate; (d) advanced; (e) very advanced.

All other main factors were treated similarly.

It was while the points system was being amended on these lines that the department became fully conscious of the difficulty of setting fair values on different types of work; of deciding, for example, how a certain level of book-keeping knowledge compared with a certain skill in typing or calculating. But the decision to adopt the O.M.A. schedule, as the only satisfactory means of avoiding arbitrary (and indefensible) judgments, by no means invalidated the points system. Success in classifying jobs by any method depends on

the availability of accurate job descriptions—and, wherever possible, on being able to cross-check one system against another.

In fact, real difficulty had been encountered in relatively few cases, and as the work proceeded it had been possible to grade a large number of jobs with clear-cut characteristics, and, therefore, to make appropriate salary changes.

The method of obtaining information was by interview with the job-holder. A description was then written up in three parts:—(a) a summary of what the job involved; (b) a general description of the regular, periodic and occasional duties which had to be performed; and (c) a detailed examination of the job under the seven factor headings. After it had been prepared, each description was agreed and signed by the job-holder and the departmental manager.

In all cases, the job evaluator's aims were clearly explained to the people involved.

The first comprehensive description of the programme was issued to all managers in 1949.

This established a definite job grading procedure. Managers were asked to check descriptions of jobs in their departments and then, by referring to the schedule, to place these jobs in appropriate grades. Meanwhile, the personnel department made similar assessments, and also used the points evaluation system as a cross-check. Final gradings were decided only after consultation between the personnel department and departmental managers.

Easier with Time

At the time when this formal write-up was issued, full descriptions had been prepared of fewer than half the total number of different jobs in the organization. The completion of this side of the programme was, understandably, a long process, but with the exception of a few "difficult" jobs, the work was carried out smoothly. One advantage of the points system was that the evaluation of jobs by factor comparison became progressively easier—and more accurate—as

the total number of evaluations increased.

The salary structure was built up in a straightforward manner, individual salary levels (within the appropriate grades) depending on the regular appraisal of staff by departmental managers at specified review dates.

The administration of the programme involves only simple records:—

1—A ring leaf binder containing all up-to-date job descriptions. (Managers hold copies of the description of jobs in their own departments).

2—A card index enabling jobs to be filed under grades—male and female separately—and in order of points evaluation.

3—Indexed lists collating the jobs in each department and indicating the appropriate grades and dates of evaluation.

Job evaluation is of necessity a continuous process. To keep the job structure up-to-date, the personnel department follow up all changes in the organization which are likely to affect individual jobs, and make assessments or re-assessments if necessary.

Short Cuts to **OFFICE EFFICIENCY**

Advice from an Old Hand

IN nearly every branch of administration there are masses of papers to be read—letters, reports and memoranda. In many cases they are far too long and they waste time, while energy has to be spent in looking for the essential points. Here are four suggestions for clearer, shorter reporting, by an experienced administrator:—

1 The aim should be reports which set out the main points in a series of short crisp paragraphs.

2 If a report relies on detailed analysis of some complicated factors, or on statistics, these should be set out in an appendix.

3 Often the occasion is best met by submitting, not a full-dress report, but a memorandum consisting of headings only, which can be expanded orally if needed.

4 Don't use such phrases as: "It is also of importance to

bear in mind the following considerations . . ." or: "Consideration should be given to the possibility of carrying into effect . . ." Most of these woolly phrases are mere padding which can be left out altogether or replaced by a single word. Don't shrink from using the short expressive phrase, even if it is conversational. Reports drawn up on these lines may at first seem rough as compared with the flat surface of officialese jargon. But the saving of time will be great, while the discipline of setting out the real points concisely will prove an aid to clear thinking.

The author of these suggestions? Sir Winston Churchill.

On Keeping Secretaries

EXAMINING the reasons for the high secretarial turnover of two American companies, investigators drew up the following list of recommenda-

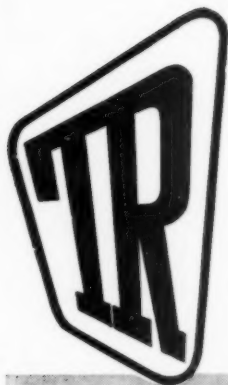
tions—in order of importance—for keeping staff:—

- 1.—Good selection.
- 2.—Making the employee feel at home and carefully explaining company policies.
- 3.—Training. Start by teaching the simple jobs first.
- 4.—Good supervision.
- 5.—Attractive, clean and well-kept offices.
- 6.—A fair salary scale with material recognition for work well done.

Sales Accounting System

AN ingenious system of route sales accounting is operated by an American retail milk distributor. Each salesman has a loose-leaf book containing a bill, covering a month and analyzed into products, for each customer on his route, with the name and address of the customer printed by an addressing machine. These are sorted into route order by the office. Sales are written up at the time by the salesman, only those items with frequent price changes being priced.

The office checks sales and



service

More than 20,000 firms already use equipment such as that shown below, the installation and maintenance of which, on a rental basis, is T.R. Service.

SIMPLE INTERCOM



Press Button
Desk Telephone

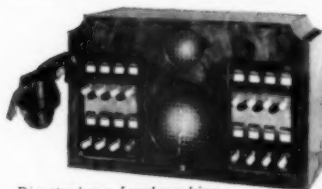


Press Button
Wall Telephone

FOR

instant communication between any number of telephones from 3 to 17.

LOUDSPEAKING TELEPHONES



Directaphone Loudspeaking
Telephone

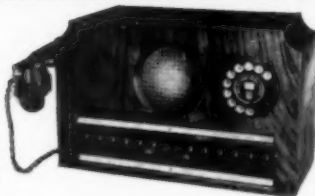


Press Button Desk
Type Telephone

FOR

full intercommunication between loudspeaking master instrument and up to 16 telephones or two loud speaking instruments and up to 15 telephones.

LOUDSPEAKING AUTOMATIC TELEPHONES



Paxmaster, calling 20
selected departments
by keys, dialing for
other departments.



Automatic Telephone
Desk Type

FOR

full intercommunication between 15 to 1,000 or more telephones with loud to loud speech between Paxmaster instruments—and for staff location purposes.

T.R. SERVICE includes also the installation and maintenance of Synchronised Clocks, Time Recorders, Time Signals, Works and Office Loudspeakers, Watchman Patrol Recorders, Fire Alarms, etc.

Full details from:

Telephone Rentals Ltd.

HEAD OFFICE, 22 KENT HOUSE, RUTLAND GARDENS, KNIGHTSBRIDGE, LONDON, S.W.7
14 OPERATING BRANCHES THROUGHOUT THE UNITED KINGDOM

H-F 661

credits daily and, at the end of the month, extends and computes the bill to a new balance. The statement is then micro-filmed and the original sent to the customer as a bill, while the photograph becomes the sales ledger account, available in case of a dispute. A 100-foot reel of microfilm is sufficient to record 3,000 statements.

Watch Supply Costs

BASIC office expenses can be divided into three parts: salaries, equipment and supplies. Supplies, because they consist of a multitude of small items, often take more than their share of expenses. One method of examining the whole business of office supplies and cutting costs is to institute a centralized control unit for the entire company. Among the factors to be considered on creating such a unit are the following:

Standardization. The adoption of standardization is the first move and one which invariably yields substantial savings. Firstly it leads to fewer items being

ordered, which reduces paperwork and book-keeping within the organization. Other good points are better control of stocks and less storage space.

Both cost and performance should be considered when selecting which items are to be "standard." A five per cent lower cost may be more than offset by a 20 to 30 per cent decrease in quality and durability. Standardization will also permit the combining of various sizes of supplies which, although it may cause some slight dissatisfaction at first, will save money.

Once the standard range is fixed, it should be classified and each item given a number to simplify ordering and recording. "Catalogues" can then be circulated to all staff responsible for requisitioning office supplies.

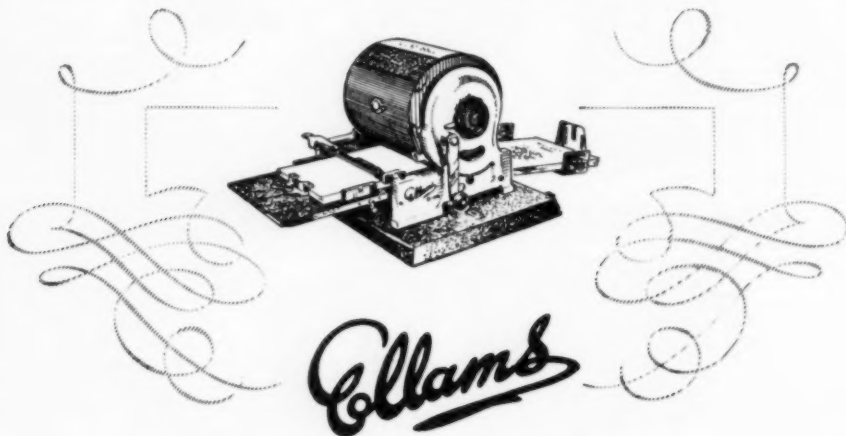
Distribution. It is helpful if ordering is limited to one day each week, with the amount requisitioned not exceeding the expected use the following week. This stops supplies from piling up in departments, cuts extravagance and helps to keep down

wastage. Other advantages of this method are space saving and the simplification of stock control.

Orders by Phone

AN ice-cream company have found that the most satisfactory way of avoiding unsold quantities of their products is by booking all orders by telephone. Once, twice or even three times a week all customers are telephoned and orders booked. A punched card system is used in conjunction with this method. Each customer has a master card incorporating pre-punched basic information — name, address, terms and any special instructions. The telephone order department marks a separate card for each item ordered, with electrographic pencils.

These cards are then punched and run through the machines with the relevant master cards to make out the route order for the next day, invoice, analysis of day's sales, sales journal and all sales records.



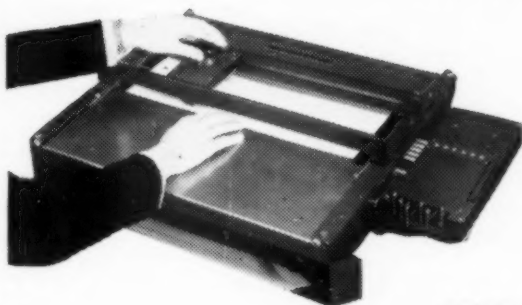
DUPLICATORS

GUARANTEED FOR TEN YEARS

ELLAMS DUPLICATOR CO. LTD.
5 DEAN STREET, LONDON, W.1.
GERRARD 4556/7



PRODUCTION CONTROL by means of the INTERNATIONAL TICKETOGRAPH



Complete visible control of production, planning and progress, showing the stage reached by every job in the factory.

Control of operation costs eliminating risk of over payments and ensuring that accurate piece-work rates are paid.

For further information ask for booklet T334/2 sent without cost or obligation.

IBM UNITED KINGDOM LTD.

formerly trading as

INTERNATIONAL TIME RECORDING CO., LTD.,
8 BERKELEY SQUARE, LONDON, W.1: MAYfair 2004

and at Birmingham, Manchester, Leeds, and Glasgow

HEAD OFFICES: INTERNATIONAL WORKS, BEAVER LANE, W 6

—International Business Machines—

Introducing—

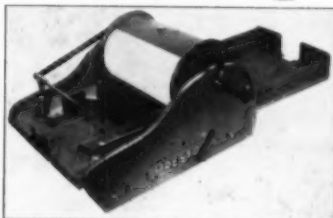


... a remarkable new Hand-operated **Office Folding Machine** designed to fold at the rate of 3000 to 4000 per hour, your invoices, statements, circular letters, advertising material—yes, everything that must be folded.

Beautifully designed and extremely simple to operate the **PRESTOFOLD** at the low retail price of Thirty-five guineas, has a wide market and a great future.

A product of the Hadewe Duplicatorworks, Drachten (Holland)

Re-introducing—



... the very attractive Rotary Stencil Duplicator with fool-proof automatic feed and semi-automatic inking (no "messy" hands) ... well designed and solidly constructed (weight 26 lb.), the **PRESTO** is worth far more than its low retail selling price of **Fifteen Guineas**.

Takes up to Foolscap size and gives un-failingly perfect reproduction.

A product of the Hadewe Duplicatorworks, Drachten, (Holland)



Details from:

H. A. MOORE & CO. LTD.

(Presto Office Equipment Division)

4/5 BRIDGEWATER SQUARE
BARBICAN, LONDON, E.C.1

Monarch 1712

Sole Concessionaires in the U.K. for Hadewe Duplicatorworks, Drachten, Holland.

HE PROSPERED TWICE

Continued from page 59

some kind. Most of them have a stock number which is used in all catalogues. That number is the key. It is used always. When merchandise is received it is listed, and a copy of the list goes to the stock control department. As goods are sent out to each branch, they are listed again, and a copy of this list goes to the branch.

In the branches, a daily return is made of all sales; one copy goes to the store within which the *Ciro* store is situated (*Ciro's* pay a percentage of their sales receipts instead of rent), and another goes back to the stock control department.

Two other daily returns are made. One shows the sales of each assistant, the other the stock position at the end of the day. The three returns must tally. Therefore, every day the stock control department can swiftly work out the stock position in every branch.

If one line is not selling in one branch, and is in demand in

another, a transfer is arranged and a return of the transfer is made. As stocks diminish, they can be re-ordered by head office long before they are in short supply.

Now in his seventieth year, Mr. Hall Caine, who was made a C.B.E. for his services during the first world war, has been chairman of *Ciro Pearls Holdings* for 25 years. He has also been a Member of Parliament. In spite of his wide financial interests—he is a director of 35 companies—he still thinks of himself as a paper man with a special interest in pearls. To the marketing of imitation pearls and jewellery he has devoted a great deal of his attention and much ingenuity. But he never wears any jewellery himself.

Her Bracelet

Mrs. Hall Caine has a bracelet which is an interesting example of *Ciro's* flair for designing pieces which will "catch on." It is a gold chain, depending from which is a thin gold square. Engraved on the square is a calendar

month—it can be any month—and one day of the month is marked with a ruby. That is an anniversary bracelet, and the occasion so marked can be anything the purchaser wants. In Mrs. Hall Caine's bracelet, the anniversary is that of their wedding.

In the interests of *Ciro Pearls*, Mr. Hall Caine journeys often to the United States and to other countries where the firm has connections. He is extremely active, a voracious reader, and his brain is as shrewd as when he first began setting up companies—and rescuing businesses from difficulties. He gives the impression of a man who has enjoyed 70 years of life and intends to enjoy many more.

His summing-up of the needs of any business is that, with all the capital and all the financial and commercial acumen which the head of a company may have and apply to his concern, the real key to success is to enlist good men into the service of the firm. "And there is one thing more: having got the good men you must trust them."

Metchair

A superb typist chair scientifically designed to meet all requirements in the modern office at a price which defies competition.

Chromium Plated stem to allow easy sliding movement.

Fully adjustable back rest with fingertip control for both upward and backward movement.

Prices and illustrated catalogue of our full range of tubular furniture on application.

Stout rubber ferrules.

Present the newest and most efficient **TYPIST'S CHAIR**

A.53 TYPIST POSTURE CHAIR

Deep padded back rest with sprung tilting action.

Fully sprung seat with generous measurements.

1" Thick spindle with 5" bearing surface allowing 4" seat height adjustment.

Sturdy underframe.



METCHAIR LTD.

Mark Road,
Hemel Hempstead.
Phone: Boxmoor 4430.

Gentlemen

a desk of
DIGNITY, DESIGN & DURABILITY
for YOUR private office

**The
WYNDSOR
DESK**

Model WD80

Available in sizes
5' 6" x 3' 3" and
5' x 3' in Oak,
Mahogany and
Walnut.

Available from all leading
Office Furnishers

Write for Comprehensive
Catalogue

Made by—

Carson Bros. Productions

3-4 Charlotte Road, London, E.C.2.



'The World's Luxury Typewriters'

STERLING — SIEMAG



The very latest in practical and elegant design

"Quick"

BOOK-KEEPING TYPEWRITER

with manifold front-feed device, simple in operation. Assures accuracy. Most suitable for modern accountancy, including the 'Twinlock' system.

— New Models —

'DE LUXE' 'STANDARD'

Available in 12½", 15", 18" and 24", Carriage Sizes.

The typewriters with the World reputation for **SPEED—PRECISION—ELEGANCE—DURABILITY**

STERLING TYPEWRITER CO., LTD.

GRAND BUILDINGS, TRAFALGAR SQUARE, LONDON, W.C.2.

Telephone: WHitehall 3583

KWICK-DRY PAPER TOWELS

Dispensed from

**AUTOMATIC CABINET
CONTROLS Waste!**



*Cuts Towel
your Costs*
50%

and is cheapest in the long run!
IN OFFICE, FACTORY and CANTEN

These **BETTER** quality towels **REALLY DRY** and are cheapest in the long run because, released **ONE AT A PULL** from the cabinet there is **NO WASTE**.

KWICK-DRY PAPER TOWELS

- ★ Cut your towel losses.
- ★ Cut your Laundry Bills.
- ★ Cut time-waste.
- ★ Offer a fresh, cream shade towel for every occasion.
- ★ Remove infection dangers of the old communal towel.
- ★ Are stronger wet than dry and do not disintegrate.
- ★ Conform to 1937 Factory Act.

"The towel that really dries—as the name implies"

**CUT COSTS — BE MODERN — install
KWICK-DRY de-luxe CABINETS**

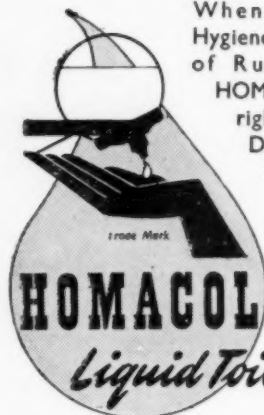
KWICK-DRY TOWELS are also supplied flat-interfolded in packets.
Full details on application to Towel Depts.

Frederer Brothers Paper Mills
BRIMSDOWN, ENFIELD, MIDDLESEX
Telephone: HOWard 1847 (5 lines) Grams: Sylkocrape, Enfield

INDUSTRIAL HYGIENE

—a straight tip

When the demands of Hygiene upset the balance of Running Costs let HOMACOL tip it in the right direction. Homacol Drop-by-Drop Liquid Soap Dispensers give just enough soap for a good healthy wash. So simple, so efficient, so economical.



Systems

★ Write now for full information to:

**THE HORTON MANUFACTURING Co Ltd
RICKMANSWORTH HERTS**

Telephone:
Rickmansworth 3191

Telegrams:
"Liquisopa" Rickmansworth

E. 53

Automatic SANITARY TOWEL MACHINES

Essential Welfare Equipment in every

**FACTORY, LAUNDRY,
OFFICE BUILDING,
DEPT. STORE.**

where women are employed

The machine illustrated is our ST/18/3 which dispenses the "LILIA" well-known Soluble Towel. Finishes are White, Cream, Green, or French polished. Strongly built. Price £6. 10. 0.

Twelve months guarantee.

Can be supplied with our new "Simpla-matic" fitment which enables the mechanism to be altered to operate at either 1d, 2d, 3d or 4d, in a matter of seconds.

The towels, which are individually packed in cartons with 2 safety pins, are obtainable direct from us and show a clear profit of 22½% on sales.



Write for particulars or call and inspect our latest models
LAMBART & SMYTH LTD.
40, SLOANE STREET, LONDON, S.W.1. Tel: SLOane 7629.

This 'Half-Way House' Solves a Recruiting Problem

By EDWARD RENNIE

'WANTED: Skilled men' is a notice which hangs—at least metaphorically—outside many factory gates nowadays. In some localities, the difficulty of maintaining a labour force at its full strength and efficiency presents managements with one of their most serious problems.

The position may be eased by recruiting men from areas where the competition for labour is less fierce, or where the opportunities for certain types of skill are more limited. But this, in turn, produces problems of its own.

Chief of these is the scarcity of suitable living accommodation. However eager in other respects, men are naturally reluctant to move from one town to another unless they have real hope of finding decent, inexpensive lodgings within a comparatively short distance of their new workplace.

Labour 'Lost'

Many firms do, in fact, try to help potential recruits in this respect. But such help may involve a fairly long search—and delay often means the loss of a valuable man.

Among the firms which have taken more imaginative action to overcome this difficulty are D. Napier and Son, Ltd., of Acton, London, makers of aero engines. In Napier's case, the problem arising from the scarcity of skilled workers in their locality were accentuated by two factors:—

1 Their work is devoted entirely to research and prototype-making. This means that the standard which they set when recruiting workers has to be kept

at the highest possible level. Even when labour is scarce, Napier's still have to pick and choose.

2 Owing to the nature of their work—and the fact that delivery dates are often arbitrary—a large night shift is necessary. But nightwork is not too popular with local employees, and so far as recruits from other areas are concerned it adds one more complication to the difficulty of obtaining suitable lodgings.

About 18 months ago, Napier's found an answer to some of these problems in the acquisition of a large three-storey house just opposite the factory gates. This building, which had previously been used as a private hotel, was completely redecorated inside and out and turned into a hostel for new employees.

Its purpose is not to provide these men with a permanent residence, but to act as a "half-way house" until they find ordinary lodgings. In this way, Napier's are able to take full ad-

vantage of the interest aroused by their recruiting campaigns, which have now covered most parts of the British Isles.

The firm have taken pains to make the hostel both comfortable and attractive. It thus represents a valuable welfare amenity—helping men from other cities and towns to settle down happily in their new environment—as well as a recruiting aid.

With two, three or four beds in each room, the hostel accommodates 30 men at one time. Additional toilet facilities have been made available in the basement, and one of the upstairs rooms is set aside as a sick-bay. All rooms are smartly furnished, and the lounge contains easy chairs, a piano, a radio and a television set. Completely absent is any impression of the "traditional" workers' hostel.

Each bedroom contains a gas fire with an individual slot-meter, and a gas-heater in the basement supplies constant hot water for washing and baths.

In charge of the hostel are a resident manager and his wife.

The scarcity of cheap living accommodation has a serious effect on many firms' efforts to attract new labour. One of the steps which D. Napier and Son, Ltd., of Acton, London, have taken to overcome this difficulty is to establish a hostel just outside their factory gates. New workers from other areas can stay there until suitable lodgings are found.



HOTEL COMFORT: A far cry from any "traditional" conception of a workers' hostel are these views of the recreation room and one of the bedrooms. Picture on right shows a corner of Napier's medical centre, which remains open for the use of the night shift.

with a staff consisting of a fully-qualified cook and two maids. The men themselves are not called upon to perform any domestic duties; even their beds are made for them. Accommodation in the hostel is not free, of course, but the charge has been fixed at a very reasonable level and the hostel is, in fact subsidized by the company.

Regulations have been reduced to an absolute minimum. Visitors are forbidden except on special occasions, and a midnight "curfew" applies on Saturday nights. But these particular rules have been drawn up in the interests of all inmates. Both the personnel manager and the welfare officer keep in close contact with new employees, who are encouraged to bring forward any personal problems which arise.

Two Meals Daily

All men who live in the hostel are on nightwork. This enables the catering arrangements—meals are included in the standard charge—to be adjusted accordingly. Two meals only are served on weekdays: one at 6.30 a.m., when the nightshift ends, and the other in the evening. On Saturdays and Sundays, the mealtimes revert to normal. No deductions are made from the standard weekly charge if men are away from the hostel over the weekend.



In normal circumstances, a new man spends about three months in the hostel. During this period, he is expected to look for permanent lodgings. Napier's themselves maintain an extensive register of lodging addresses (compiled and kept up-to-date by regular local advertising) and all men have access to this. An important point is that each address on the register has been personally investigated by the welfare officer. In some cases, the firm pay a retaining fee on suitable accommodation to keep it open for their own employees.

By these positive methods, between 300 and 400 men have been helped to find accommodation during the past 18 months.

No man is compelled to leave the hostel, of course, until he is fixed up satisfactorily.

Particular difficulty is encountered in the case of married men who wish to bring their families to London, but even here the firm have been able to achieve considerable success. During periods of separation from their families, married men receive other assistance, including subsistence allowances and travel warrants.

The nightshift normally involves up to 400 workers. The canteen is open all night, serving between 80 and 100 main meals, while six trolleys take round tea, sandwiches and cakes. Two male nurses remain constantly on duty in the medical centre.

Peter's SANITARY TOWEL Vending Machines

provide these advantages



- A mechanism that can be adjusted to operate on any number of coins.
- A choice of brands—soluble or non-soluble.
- An assurance of unlimited supplies.

Particulars from:

Automatic Machines

Limited

1, LADBROKE ROAD,
LONDON, W.11.

Telephone: PARK 7608.

PETER'S

Overalls FOR ALL TRADES & PURPOSES

BOILER SUITS



BIB & BRACE

OVERALLS



**APRONS, etc.,
for MEN and
WOMEN,
COATS,
JACKETS.**



**The "VOLE"
Brand**

RIGMEL SHRUNK

Write for PRICES and PATTERNS

H. WHEELER & COMPANY LTD.
107 London Road, Plaistow, London, E.13

Phone: GRAngeWood 4701 (5 lines)

Two successful educational films

in 16 mm., colour and sound

by **Walt Disney**

"How to Catch a Cold"

Warmed by Disney humour and peopled with delightful cartoon characters such as the kindly intellectual "Common Sense" and the cold-ridden "Common Man," this amusing film has been greatly successful wherever shown. Full of fun and imagination, it is also scientifically accurate, pointing out clearly the Do's and Don'ts of the all too common "common" cold. Children and adults alike will find it memorable.

Approx. 12 mins.

"The Story of Menstruation"

This film combines the dignity of plain speaking with an atmosphere of warmth and ease. It shows how accurate knowledge helps to create a healthy attitude and also stresses the care a girl should take during menstruation. Its touches of warm humour and plain common sense dispel fear and impart an attitude of respect to this essential part of the life process.

Approx. 12 mins.

Two additional educational aids include a physiology chart to introduce the subject and copies of "Very Personally Yours" to distribute after the film.

These films are equally
suitable for children, and adults
in business and industry

Both films can be borrowed free of charge.
Write for further details to 27 Hill St., London, W.1

BY COURTESY OF
Cellucotton Products
LIMITED, LONDON



THE
Bartlett
'36'

To serve staffs too large for a teapot but too small for a Tea Trolley Service, the "36" model of the Bartlett range of Multipots is the answer. World famous, these units are serving millions of cups of tea daily, Bartlett experience and advice is available on request.

Write for literature now.

G. F. E. BARTLETT & SON, LTD

BELL STREET, LONDON, N.W. 1. Telephone PADDINGTON 8222

S.B.10.

BIRMINGHAM: 12, Whitmore Road. Tel. Victoria 1615 MANCHESTER: 530, Stretford Road. Tel. Trafford Park 0288

Policy Column

Little to Fear From the Law

CANTEENS are in the limelight again. That is one effect of the publicity which has surrounded the introduction of what is popularly called the Clean Food Bill. Whether or not the Bill becomes law, its provisions will be studied with great care.

It is inevitable, perhaps, that so many people should speak of canteens, food poisoning and unhygienic conditions almost in the same breath. But whatever blame may be justified in isolated cases, there is no doubt at all that the standard of cleanliness of the average industrial canteen compares very favourably with that of the average hotel or restaurant.

For one thing, canteens are generally of more modern construction. For another, they are more often designed specifically for the job they do.

Equally important is the fact that factory managements are invariably careful "housekeepers", taking an active interest in all departments of their organizations.

Canteens have nothing to fear from new legislation, now or in future, if three main conditions are fulfilled:

If the building is light, spacious and airy, with good store-rooms, sound floors and smooth walls and ceilings.

If the management make sure that the canteen staff are healthy when they start work, go home as soon as signs of sickness appear, and do not return without a proper medical certificate.

If the canteen equipment and cloak-rooms conform to a reasonable standard, and if plenty of clean overalls, soap and individual towels are always available.

To check the human element is the job of the canteen manager—and that gives especial interest to the article which appears in the adjoining columns. A good man will do the job properly.

Top management can—and should—keep an eye on things themselves. In a well-run canteen, cleanliness is an integral part of efficiency.

Above all, there is no place for complacency. Where new premises are being planned or old premises re-planned—or even where new items of equipment are being considered—the provisions of the new Bill should be studied with especial care.

How to Choose the Canteen Manager

By WINIFRED McCULLOUGH

Senior Canteen Adviser, Industrial Welfare Society

The canteen is a powerful—and often costly—factor in industrial life, and much depends, therefore, on the ability of the man who runs it. To pick the right man for the job, each member of the selection panel must have a clear idea of the special qualities which are required.

Here is a useful check-list for management.

ALL the factors which should influence the selection of a canteen manager can be divided into three sections, of nine points each, under the headings of Background, Questioning, Observation.

This 27-point plan can be used by one member of management or by a panel. Interviewing by panel is undoubtedly the more satisfactory arrangement.

Ideally a panel should comprise:—one member who is mainly concerned with the applicant's technical standing; one who is concerned with character, temperament and the likelihood that the applicant will fit into the framework of the organization as a whole; one who acts largely as an observer, with the special assignment of judging health, nervous stability and appearance; and one—the person under whose direct supervision the chosen applicant will work—whose main duty is to decide, "Will I get on well with him (or her)?"

These members should be provided with a form on which to note their findings in some detail. But unless this form is drawn up very carefully, no place may be found for the items which individual members consider to be important.

It is because I have seen many complete failures to make the

best selection that I put forward the following plan:—

(a) BACKGROUND

These nine points can be found by reference to former employers, training schools, etc.:—

- 1—Honesty.
- 2—Ability to work to a cost policy.
- 3—Ability to control staff.
- 4—Organizing ability.
- 5—Validity of experience claimed.
- 6—Validity of training claimed.
- 7—Reason for leaving previous employment.
- 8—Ability to take place as a member of management.
- 9—Correctness of statements about age and health.

(b) QUESTIONING

Between them, members of the panel must elicit the answers to these nine questions:—

- 1—Has the applicant's working experience proceeded in an orderly way from job to job, always taking an added responsibility?
- 2—Have his experience and training prepared him for the job under consideration?
- 3—Has the applicant a sound technical knowledge for the job? Can he substantiate these

records of work and training in each section?

4—Has he the attitude towards people under and over him which would be looked for in any other member of management being considered by the company?

5—Would his attitude towards customers fit in with the company's general outlook?

6—Does he reveal a realistic approach to costs and cost policy? If so, can he substantiate this by instances from his own experience?

7—Is he a person who likes and mixes well with other people? Is this indicated by his social activities—his hobbies and interests?

8—Are his general education and cultural standard up to the job's requirements? What does he read? What does he think of such things as the Clean Food Bill, the catering Wages Board rates, the new apprentice scheme for cooks, the employment of older workers?

9—Do his opinions on the selection, welfare and training of catering staff indicate ability to form and lead a good team? Does his previous experience show him to be a good organizer?

(c) OBSERVATION

All members of the panel should make their own assessments of these nine points:—

1—*Personal appearance.* Neatness, indicating a good general standard; clear skin, well-kept hands. (For this type of work a "wholesome" look is most important).

2—*Personality.* Is his manner friendly, open, responsive? Is he firm without being aggressive? Does he make a good first impression?

3—*Responsiveness.* Is he quick to understand and formulate his replies to questions?

4—*General health.* If a medical examination is to be made this is less important. If not, does the applicant appear to be in good health; does he look old for his age?

5—*Temperament.* Catering demands a certain placidity. Does the applicant reveal this during the interview? • How

would he stand up to complaints and criticism?

6—*Nervous stability.* Does he appear free from the mannerisms and gestures which indicate a highly-strung temperament?

7—*Courage.* Will he voice his own opinions even against the expressed views of members of the panel?

8—*Tenacity.* Having voiced an opinion, will he defend it with reason and good humour, and hold on to it unless he is really convinced otherwise?

9—*Tact.* This should be demonstrated in his dealings with the panel as a whole. It is an essential part of the job's requirements.

Each member of the panel should have a list of these 27 points, and should indicate the applicant's rating against those under the headings of "questioning" and "observation." As

soon as an interview is over, the panel should decide the applicant's total score.

Some agreement must be reached, of course, on the relative importance of various points. This differs in individual cases. For example, in a very big organization personality characteristics would have a relatively high rating, whereas in smaller organization technical qualifications would count for more.

Before any interviews take place, the members of the panel should discuss among themselves the relative importance of training, experience, character, health, and appearance to the particular job under consideration. Each, of course, will already have prepared sheets showing the applicants' names, ages and short summaries of their training and experience.

Talking Points

Training Scheme for Cooks

IN co-operation with the Ministry of Education, the Hotel and Catering Institute have started an apprenticeship scheme for cooks. Apprenticeship takes five years, and includes a good deal of release time to attend technical courses.

Although the scheme is designed to turn out chefs for hotels and restaurants, some large industrial concerns are already participating.

In districts where such courses are being run, there should be very good opportunities for large canteens to recruit future chefs.

Bright Surround

MANY canteens are in separate buildings, and some tend to be surrounded by a dreary wasteland decorated with broken milk bottles, empty fish boxes, and factory waste.

Here and there, managements have incorporated this land in factory gardening schemes, and have had it turfed and planted with flowers and shrubs.

In smaller establishments the canteen staff will usually take an active interest in their "garden" if it is dug over for them and if seeds and seedlings are provided.

At one factory the canteen hut is approached over a crazy path laid by the kitchen porter, past a rose trellis concealing the refuse bins. On the far side of the path, a small lawn,

sown and tended by the manageress, was coming along nicely. Cook's herb garden was more promise than performance, but three small apple trees and a few black-currant bushes were obviously doing well.

On a less ambitious scale at another factory is a "window-sill garden" of ferns, geraniums and winter-flowering bulbs down one side of an otherwise rather grim dining-room. The boxes had been made by the night watchman, and the horticultural work was in the hands of the 73-year-old woman who came in part-time to "do" the cutlery. Bulbs were bought from a penny-a-week fund.

Small stuff, of course, compared with costly factory gardening schemes, but even such simple ideas give pleasure to both staff and customers.

What Size Plates?

NEXT time the purchase of dinner plates is on the agenda, consider their size.

Hotels generally use 13-in. plates—and very foolishly the smaller portions of today sometimes look on these vast surfaces! Some snack-bars use plates as small as 9-in. Many cafes use 10-in. plates.

The effect of a smaller plate is to make a meal look bigger. But it also calls for neat placing of food.

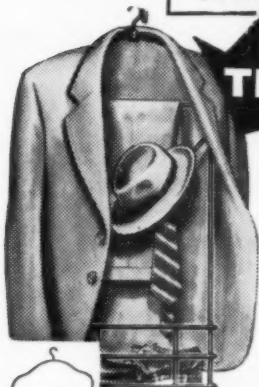
On the whole, the 10-in. or 11-in. plate is probably the most popular.

Patent No.
419653
Des. Reg.
798558

SOLVE PROBLEMS OF

ABSENTEEISM
FLOOR SPACE
WELFARE

LIKE
THIS



THE "SIEBER" HANGER SYSTEM

is the **only** completely
satisfactory method of clothes
storage because it has been exclusively and
scientifically designed for its purpose.

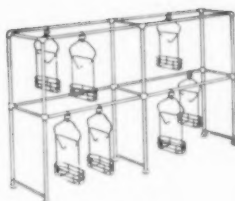
ECONOMY AND EFFICIENCY

"Sieber" Hangers incorporate **proven**
basic principles which ensure the following
advantages, each one of which amply repays
the initial cost.



SIEBER
ALL-IN-ONE HANGER

Installed throughout the country
by Industrial Enterprises, National
and Municipal Authorities and
Hospitals.



1. Saving of floor space.
2. Thorough airing and drying of wet garments.
3. Reduction of absenteeism due to colds and chills.
4. Preservation of life and shape of clothes.
5. Complete hygiene coupled with neatness and compactness.
6. Low installation cost—no maintenance necessary.
7. A lifetime of service from robust all-metal structure.
8. Ready adaptability to existing or new buildings.

Write today for full particulars:

JAMES SIEBER EQUIPMENT CO. LTD. 1 Africa House, Kingsway, London, W.C.2. Tel. Holborn 5121-4531

PARK YOUR CYCLES THE ODONI WAY

(REGD. TRADE MARK)

With Odoni Patent "All-Steel" BICYCLE STANDS

Types to suit all possible requirements
Single or Double-Sided. Horizontal or Semi-Vertical
For Indoor and Outdoor use.



TYPE 10
DOUBLE SIDED
SEMI-VERTICAL
OUTDOOR
STAND, BUILT
WITH CLOSE
RACK
ARRANGE-
MENT (CYCLES
AT 12"
CENTRES)

Write for fully illustrated leaflet and price list to
Sole manufacturers and Patentees.

ALFRED A. ODONI AND CO. LTD.,
SALISBURY HOUSE, LONDON WALL,
LONDON, E.C.2

Tel. No.: (WORKS: LONDON, N.W.) Tel. Add.:
MONarch 8638-9 Odoni, Ave., London

THE MOST EFFICIENT

heating



FOR
OFFICES



SHOPS
THE
SPIRALUXE
CANTEENS



The 'SPIRALUXE' gives you good heating
and ventilation in one compact unit. In
cold weather it provides comfortable warmth
rapidly and the motor-driven fan ensures
even heating and the elimination of cold
spots. Available either as a Portable Model
or Wall Mounting (2 or 3-kW). Single phase
electricity supply only. 12 month guarantee.
Write for List B97.

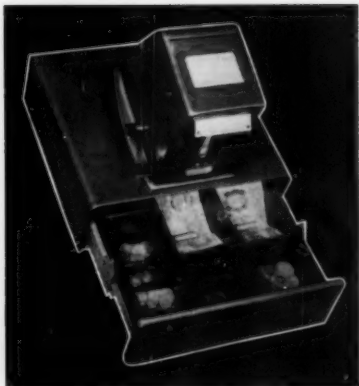
★UNITS POST-
ED SAME DAY
AS ORDERS RE-
CEIVED.

SPIRAL TUBE
Unit Heaters

SPIRAL TUBE & COMPONENTS CO., LTD.
OSMASTON PARK ROAD, DERBY. Tel.: DERBY 48761 (3 lines)
Head Office: Honeywell Lane, Stanmore, Middlesex.

For fast service counters —the Autobill!

Here's a new Sales Register
that gives the bill *and* controls the
cash — on the spot!



- **Speeds Service.**
- **Slashes Stationery Costs.**
- **Keeps locked record of Bill for Check on Stock and Cash.**
- **Permits access to Cash only when Bill is Issued.**
- **Never need run out of the Continuous Stationery.**
- **Coin trays with locked covers are interchangeable for relief assistants.**
- **£44 COMPLETE** *Also available without Cash Drawer, for use when centralised cash system operating — £26.*

SERVES LARGE STORES OR SMALL SHOPS ALIKE!

Details of AUTOBILL upon request to:

AUTOMATICKET LTD

197 Wardour Street, London, W.1

Phone: GERrard 3482-6

BRANCHES THROUGHOUT THE COUNTRY

Business EQUIPMENT SURVEY SECTION

NEW AIDS TO GREATER OUTPUT AND LOWER COSTS

• Office . . 97 • Industrial . . 105 • Welfare . . 112 • Canteen . . 113

FOR YOUR OFFICE

Executive Time-Saver

USEFUL and handsome addition to any top executive's office is the new *Agaphone Director*. Housed in a single polished wood cabinet are a dictating machine, a two-way loudspeaking intercommunication system, a telephone amplifier and recorder and facilities for receiving B.B.C. Home and Light programmes. Seven push buttons



Many fingertip facilities

mounted on a fascia panel select and control all these features.

Up to an hour's dictation or recording can be put on the spools of wire, which are self-contained in a removable cassette. When one of these is full another one can if necessary be clipped in place in a few seconds. Recordings can be erased and the wire used over and over again. Special features enable any place on the wire to be found quickly and an automatic device can be used for indicating priorities on letters, etc. The dictating unit, which is self-contained, can be removed from the *Director* console and used on its own at home or in a car. It can also be re-

moved for transcribing, though a separate machine for this purpose only can be supplied as an extra.

By pressing a button the executive can talk direct to his secretary or personal assistant; both sides of the conversation will be amplified at his end but only the person addressed can hear what the executive is saying at the other end. The whole conversation can be recorded if necessary, simply by pressing another button. The same loudspeaking and / or recording facilities are also available for telephone conversations. This saves valuable time when "holding on" and allows other people in the room to hear the conversation when this is desirable.

Other buttons are used for selecting the B.B.C. programmes. These, too, can be recorded.

Enquiry Ref. No. O.1/1.

Finger-Tip Taper

TWO finger-tip controls on the *Tackytaper* enable three different lengths of cellulose tape to be dispensed cleanly and simply. Rolls of tape 72 yards long and up to 1in. wide can be accommodated and loading these into the machine is extremely simple. Tape is fed out (cut in predetermined lengths of 1½, 2½ or 3½in.) over the blades of a



Paddle wheel delivery

"paddle wheel" and it is easily removed by slipping the finger between the blades of this.

Streamlined in shape and fitted with rubber feet, the *Tackytaper* is equally suitable for use on counters or production lines, in warehouses or packing departments.

Enquiry Ref. No. O.1/2.

Small-Office Typewriter

SPECIFICALLY designed for the small professional and commercial office, the *Office-Riter* is virtually a scaled-down standard machine. In size, weight and price it is about mid-way between a normal office machine and a portable but in performance it is claimed to be equal to a standard office typewriter.

Its advantages in a small office are that it occupies little space



Small office standard

and because of its lightness can easily be placed on top of a filing cabinet, etc., when not in use. It costs about the same as the good rebuilt machines on which many small firms rely at the moment.

An 11in carriage is fitted which gives a 10.3in. writing line and the paper feed and platen are designed to allow at least 10-carbon form packs to be typed with even the last one clearly legible. There is a full range of 44 keys and the typebars are of an accelerating, long-throw type suitable for stencil cutting and taking numerous carbons.

In external appearance the machine is generally similar to the same manufacturer's *Quiet-*

Business EQUIPMENT SURVEY

• **Riter portable.** It also has such features as the new patented quick ribbon-change, single key-board tab, set and clear lever, visible finger-tip margin set buttons, three-position paper bail, segment shift, variable line spacer, touch regulator, ribbon-colour switch and synchronized paper scales. Keys are of plastic moulded to a new contour-formed shape and these blend in colour and styling with the streamlined, dust-excluding case. Weight of the *Office-Riter* is approximately 16½lb.

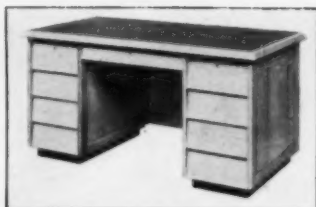
Enquiry Ref. No. O.1/3.

Different Desks

ENTIRELY new design ideas have gone into the production of a new range of office desks and tables in wood. Up-to-date in appearance without being extravagant, the furniture fully warrants the manufacturer's description—"modern in appearance, modest in price."

The range consists of a double-pedestal executive desk, a single pedestal general purpose desk and a matching table with two drawers and a typist's desk with an underslung three-drawer unit.

The executive desk has seven



Modern but modest

shallow drawers including the centre one and there is a deep filing drawer in the right-hand pedestal. Drawer fronts are louvred and they are pulled out by their overlaps thus eliminating the need for protruding handles. The pedestals are identical in appearance and each is fitted with a pull-out slide. Locks are provided on the three top drawers and plinths raise the desk slightly.

Construction can be in either light or medium oak and the top (which has chamfered edges and measures 60in. by 33in.) can be covered in green or brown lino or can be of plain wood.

All the pieces in the range are

generally similar in construction and are designed to blend together. The executive desk and table have been accepted by the Council of Industrial Design for inclusion in "Design Review."

Enquiry Ref. No. O.1/4.

Waterless Washer

STAINS on the hands from carbon papers, ball-point pens, typewriter ribbons and hecto-



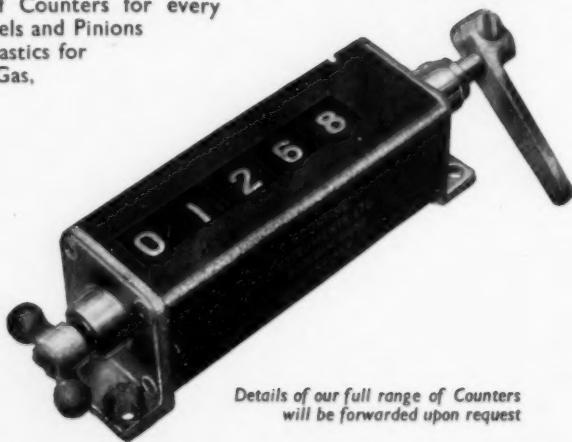
Cleans hands at the desk

FROM NUMBER WHEELS TO COUNTERS

We specialise in the manufacture of Counters for every Industrial application. Number wheels and Pinions injection moulded in tin alloys or plastics for use in direct reading Electricity, Gas, Water Meters, Telephone Registers, Taximeters etc., are also available.



Details of Number Wheels and Pinions on request.



Details of our full range of Counters will be forwarded upon request



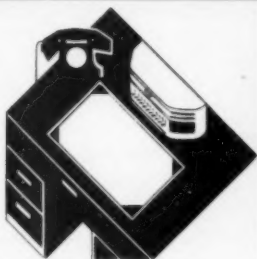
COUNTING INSTRUMENTS LTD.



5, ELSTREE WAY, BOREHAM WOOD, HERTFORDSHIRE

Telephone: ELSTREE 1382-3-4.

**balanced
knowledge**



From Smith's shops and bookstalls you can quickly obtain books on management, business forecasting and books that will help solve trade and commercial problems from any aspect.

Books not actually in stock can usually be supplied within a day or so. Smith's Postal Service can send books to any address at Home or Overseas. Lists of the standard works on any subject gladly supplied on request.

W. H. Smith & Son
FOR TECHNICAL BOOKS

HEAD OFFICE: STRAND HOUSE, LONDON, W.C.2

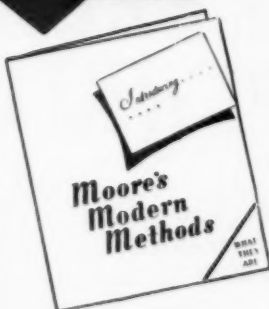
FREE

This little booklet has been produced to give the busy Executive a quick over-all picture of the comprehensive M.M.M. Service.

Its eight concise pages give brief details of:—

**Loose-Leaf Binders and Forms
P.A.Y.E. and Wages
Records
Visible Records
and complete list of other FREE Publications.**

**Machine Accounting
Equipment
Covers for Catalogues
and Printed Matter**



Just send your Letter-heading or Business Card marked 'Book No. 1169A'

MOORE'S MODERN METHODS, LTD.
19, 20 & 21 FARRINGDON STREET, LONDON, E.C.4

HENLYS

England's Leading Motor Agents



DISTRIBUTORS FOR

JAGUAR

and

ROVER

*The finest selection of
Used Cars always
on show*



HENLY HOUSE

385 EUSTON ROAD, N.W.1. Tel: EUS 4444

DEVONSHIRE HOUSE

PICCADILLY, W.1. Tel: GRO 2287

Branches:

1-5 Peter St., Manchester

The Square, Bournemouth

Cheltenham Road, Bristol

182 London Road, Camberley

A. Mulliner Ltd., Bridge Street, Northampton

30 Depots throughout the Country

Business EQUIPMENT SURVEY

graphic carbons are notoriously easy to come by in offices. Besides being unpleasant and impairing the cleanliness of work, their removal wastes a good deal of time.

With a new semi-liquid soap called *Scof* and a clean rag or tissue, these stains can be removed quickly and easily without water—and without the need for office workers to leave their desks.

Supplied in an unbreakable, pliable plastic bottle, the cleaner is applied by squeezing the container, which ejects a small amount through a nozzle.

Enquiry Ref. No. O.1/5.

Pleasing and Efficient

BOTH the *Olympia Standard* typewriter itself and the work it produces are pleasing in appearance. The machine (which is made in Germany) has a number of features which, it is claimed, make typing easier, quicker and more efficient. For instance, a two-step escapement in conjunction with the space bar allows straight right-hand margins to be achieved without supplementary equipment. The eight-stop decimal tabulator is operated by one "set" and one



Justifies both margins

"clear" key. All the 46 finger-form plastic keys are spring-loaded to make typing more comfortable. The touch can be adjusted to suit the individual by means of a lever incorporated in the keyboard.

Paper feeding is fully automatic—the paper is merely placed in position and a pull on the lever feeds it through the platen to the correct writing position. A graduated plastic paper support is fitted behind the carriage. Among the other up-to-date features are five different line spacings, carriage release on both sides, four-colour switch, basket shift with automatic locking, five sizes of interchangeable platen, and a special

space bar movement for inserting omitted letters. The machine is enclosed in a dust-excluding, streamlined case which is finished in a pleasant shade of green.

Enquiry Ref. No. O.1/6.

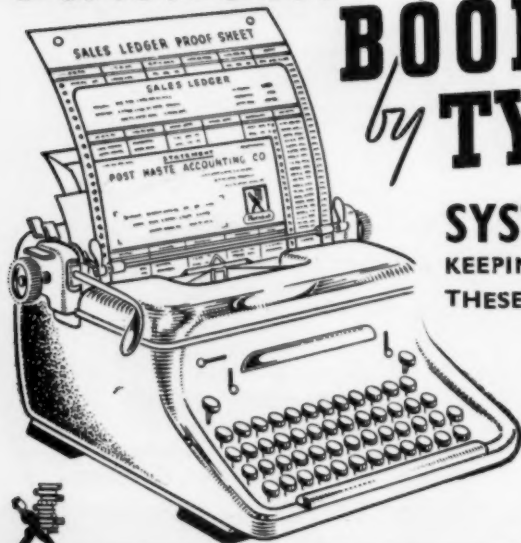
Marking Variety

NEEDS of firms that use a variety of tags, labels and tickets to mark their products are met by the new *Unipres* machine. Stated to be precision built from high quality materials, the machine has a capacity of up to 7,000 printed tickets an hour.

Tags and labels can be printed from the roll, in gangs, and continuous strips or singly. The stock can be cardboard or paper, gummed or plain. It can be fitted with metal eyes, fasteners, rims, hooks, etc., or it can be strung. The smallest tag that can be printed is about $\frac{1}{8}$ in. by $\frac{1}{8}$ in., whilst the largest measures 3 in. by 2 $\frac{1}{8}$ in.

Type is set up on segments which hold it by means of self-locking runways. When ready, the segments are fitted to the rotator shaft for printing. Spare segments can be provided so that standard jobs may be left permanently set up for use at any

Twinlock BOOKKEEPING by TYPEWRITER



SYSTEMS REDUCES YOUR BOOK-KEEPING OPERATIONS BY 50% WITH THESE ADVANTAGES:—

- * Immense saving of time.
- * Postings are proved accurate.
- * Statements always up to date ready for mailing.
- * Shows exact position of your business daily.



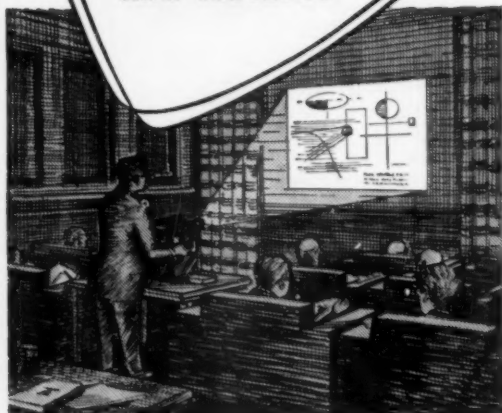
PERCY JONES (TWINLOCK), LTD., 37, CHANCERY LANE, W.C.2.

CHANCERY 8971.

Showrooms: MANCHESTER, GLASGOW, LEEDS

Factories: BECKENHAM, KENT.

WEST lantern slides
at meetings
and lectures



We at "WEST" are proud to include among those for whom we make Lantern Slides, a number of famous Industrial Organisations whose standards are as exacting as our own. . . .

Diagrams, photographs and charts follow each other across the screen to build up a clear incisive picture, often beyond the descriptive power of words alone.

Such things as technical data and marketing techniques are often complicated and difficult for an audience to follow, and the quality of your Lantern Slides can make a lot of difference.

That is how we see it, and why we spare no pains to make the best of every picture in every Lantern Slide we produce.

WESTY SAYS:
For prompt service
ring **ABBEY 3323**.



WEST

LANTERN-SLIDES
make things clear

A. WEST & PARTNERS LTD. (established 1888)
4 ABBEY ORCHARD ST., WESTMINSTER, LONDON, S.W.1

JANUARY, 1954

SURER, SWIFTER VEHICLE CONTROL

ON AND OFF THE ROAD

The good driver uses hand and eye together, translates visual information into action swiftly, doesn't overlook details which may be important. You value such a man. He has the secret of control.

To help you control a whole fleet as surely as the driver controls his single vehicle, special "visible" records have been designed. Oddly enough, they possess just the qualities we have outlined above . . .

Visibility puts your finger directly on the required record—that means quicker entry, quicker reference—economy in time and labour.

Visibility means important details are "flashed" to your eye, pinpointed for action. You just can't overlook an inspection or overhaul date—excessive fuel consumption—a suspect gear box or tyres due for retirement . . .

Whatever your problems—overheads, licence and insurance renewals, running costs; maintenance costs; oil, tyre and engine changes—there are carefully designed visible records to take care of them for you.

"Vehicle records" or "Coach records" jotted on your letter heading, will bring you details by return.

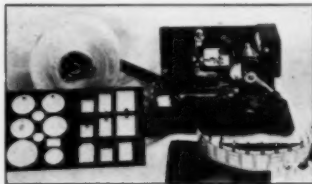
Shannon Systems
FIRST IN FILING

The Shannon Ltd.
101 Shannon Corner - New Malden - Surrey

Business EQUIPMENT SURVEY

time. Nearly forty different type faces and sizes are available, as well as decorative borders.

An automatic counting device is incorporated. A kit containing ink and cleaning fluid, tweezers, type case and clamps, etc., is sup-



The machine and its products

plied with the machine. The Unipres is simple and versatile and is easy both to operate and maintain.

Enquiry Ref. No. O.1/7.

Safety Chute

DESIGNED for bus depots, garages, service stations and other places where loose cash accumulates after banking hours, a new type of safe needs no attendant to keep the keys. Conductors, garage attendants, etc.,

drop the day's takings (enclosed in a leather wallet) into a wall trap. From there, they pass via a chute into a thief-resisting safe.

A baffle plate fitted in the chute effectively prevents the contents of the safe being "fished out" by way of the wall trap.

Enquiry Ref. No. O.1/8.

Defeats Damp

IMPORTANT documents are often stored in vaults and basements, strongrooms or safes. Whilst these protect them from theft, fire, etc., it often exposes them to another less dramatic but serious enemy—damp. In extreme cases condensed moisture and a damp atmosphere can cause mildew which renders documents illegible; but even slight dampness can damage the paper and affect print.

Equipment for combating this danger has recently been introduced. It is known as the Lectrodryer BE 40, operates from normal 220 volt mains and depends for its desiccating powers on the absorbent qualities of activated alumina. Two beds of this material are provided; they work alternately, and as one is operating the other is being



Keeps documents dry

heated and reactivated. An automatic changeover mechanism ensures alternation according to a predetermined cycle. Running costs are claimed to be very low and the dryer will operate indefinitely without attention.

It is capable of maintaining a space of 3,500 cubic ft. at 50 per cent relative humidity and 70 deg. F., or half this space at a humidity of 35 per cent. Its dimensions are 26in. by 43in. by 38in. and the unit can be situated inside or outside the room it is safeguarding.

Enquiry Ref. No. O.1/9.

YOU can save

THE COST OF A TRAINED
OPERATOR BY USING A

HAMANN300

The Calculator with the
SIMPLIFIED KEYBOARD

Transfers Between **ALL** Registers

Send today for details to:—

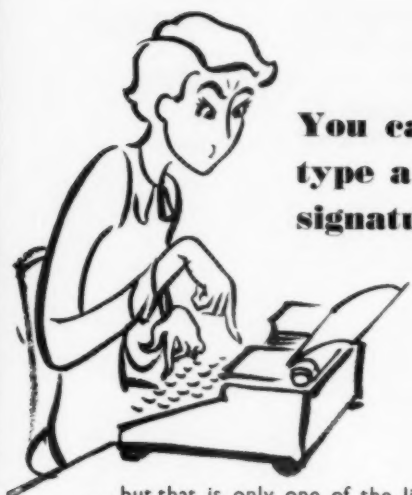
OFFICE MACHINERY LTD.



£230

"OMAL HOUSE" 22 KINGLY ST., LONDON, W.1.

Telephone: MAYfair 1028



**You can't
type a
signature . .**

... but that is only one of the limitations of the typewriter used for copying work; it can be expensive and mistakes can be made. OZARAPID copying on the other hand produces perfect facsimile copies of any document or illustration in a fraction of the time, at a fraction of the cost.

Perfectly dry copies can be made from any reasonably translucent original in a matter of seconds for only a penny each. Investigation shows that approximately 60% of all office mail can be copied direct.

Incorporating Dry Development this process is unquestionably the quickest, cleanest and cheapest office photocopying method in existence.

Write, phone or call for particulars or demonstration.



OZARAPID

REGD.

OZALID COMPANY LIMITED
62 LONDON WALL, LONDON, E.C.2.
Telephone: MONarch 9321 (8 lines)

Whether you lean



backward



or forward



to the left



or to the right

**The
POULTNEY**

**floating
CHAIR**
moves with you



The greatest advance in seating in the last century. Approved by the Council of Industrial Design.

Models available as stools for Home, Office and Factory, and as chairs for typists, telephonists, draughtsmen and for factory workers.

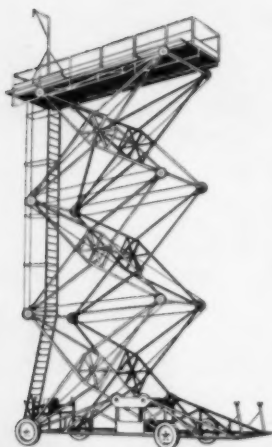
Reduces fatigue and increases efficiency by providing resilience, comfort, freedom of movement and essential support in all positions. Send for detailed lists.

S. & B. POULTNEY LTD.

Sales Office: 28 Ely Place, Holborn Circus, E.C.1.
Tel: HOLborn 0352

→ **eliminate** **access problems**

with a **MOSS** access tool



THE CAMEL

Gives working heights up to 50 ft. When folded is easily towed by a large car or light van. Will fold down to 10' 6" high or less for travelling.



THE BEANSTALK

Gives working heights up to 30 ft. Will fold to pass through normal size doorways or narrow gangways.



THE GIRAFFE

Gives working heights up to 40 ft. Will carry four men comfortably and securely. Rotating versions for lorry mounting.

Getting at places overhead can be a cumbersome, time-wasting business—but not with a Moss Access Tool. One or other of the tools illustrated will give immediate access—easily and safely—to work above normal reach. For maintenance of buildings, ships, aircraft, railway bridges, street lighting, and wherever men need a high working platform, a Moss Access Tool will quickly pay for itself in its saving of time and labour, and its convenience. Thereafter, it will pay clear dividends. Let us know the nature and height of the work and we will send you details of the Moss Access Tool for the job, or arrange for our Technical representative to call on you.



Write for descriptive leaflets **R.6** to

WM. MOSS & SONS LTD

MECHANICAL DEVELOPMENTS DIVISION

BRAEMAR AVENUE • NEASDEN • LONDON • N.W. 10

Tele: GLAdstone 8283/4

Telegraphic address: 'Accesquip' London

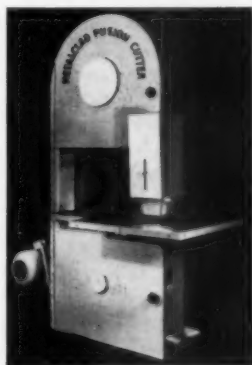
SPECIALISTS IN ACCESS EQUIPMENT

INDUSTRIAL EQUIPMENT

PROCESSING

Cuts by Fusion

BLADE of a new fusion cutting machine moves so fast that intense heat is generated and causes local plasticizing of the metal being cut. The result is not only a very high speed of operation, but also cuts so clean-edged that they appear to have been ground. A 10-h.p. electric motor drives the blade at a speed



Cuts fast and very clean

in excess of 10,000 ft. per minute; $\frac{1}{4}$ in. thick stainless steel and 100-ton tensile armour-plate can be profiled at over 2 ft. per minute. Even 1 in. thick material of this type can be cut at about 9 in. per minute, and mild steel can be profiled at even higher rates.

Since the machine will cut any metal up to 1 in. in thickness with a melting point below 2,500 deg. Centigrade, it can handle heat-resisting nickel-chrome alloys and high-speed steels. Mild steel angle can also be cut and mitred.

A flexible-backed blade is used and this can be up to 1 $\frac{1}{2}$ in. wide and between 18 $\frac{1}{2}$ and 19 $\frac{1}{2}$ ft. long. Normally a toothed blade is used, but for certain materials a toothless blade is recommended as it gives a finer finish without loss of efficiency. Blades run on wheels fitted with ball bearings and vulcanized rubber treads. They are equipped with brakes which are applied automatically if a blade breaks; at the same time, the power supply to the motor is also interrupted. Blade life varies with the material

being cut, but it is said to average about 30 hours.

Since the blade is moving through the air so rapidly, the heat generated in it is immediately dissipated and it remains cool even after several hours of use. A pair of case-hardened discs prevent the blade from twisting.

An extension piece is fitted to the 3 ft. square table so that a maximum length of 34 in. can be passed between the blade and the frame. Weight of the machine is approximately 23 $\frac{1}{2}$ cwt. and it occupies a floor space of 3 ft. by 6 ft. 5 in.

Enquiry Ref. No. F.1/1.

MACHINE TOOLS

Inside and Out

A WIDE range of components, including tungsten carbide dies, can be processed on the new Type 2018/3 internal grinding machine. Attachments can also be fitted for external grinding and a coolant supply can be arranged where wet grinding is necessary.

Maximum stroke of the adjustable, automatically-reciprocating grinding carriage traverse is 4 in. An alternative hand-operated arrangement is also fitted.

Grinding spindle is air-cooled, runs at 20,000 r.p.m. and can be supplied to take either grinding wheels or quills. Collets or self-centring chucks up to 5 in. maximum diameter can be accommodated by the headstock, which can be swivelled from 0 to 15 deg. It is fitted with a diamond tool for dressing the grinding wheel.

An attachment is available



Many attachments and unique features

which is claimed to be unique in that it allows parallel bores down to fine diameters to be lapped and polished, ensuring a true parallel throughout and avoiding "bell-mouth." The setting of this attachment is determined electrically.

A new type of lap is also used that allows ground bores to be given a fine finish immediately after grinding and without removing the workpiece from the machine. The grinding wheel is simply replaced by a lap.

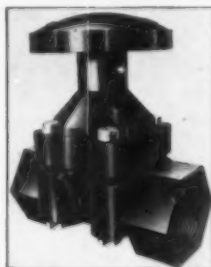
The machine can be supplied with a cabinet stand or for bench mounting.

Enquiry Ref. No. F.1/2.

GENERAL

Non-corroding Valve

CLAIMED to resist completely the attacks of industrial fluids, including acids, a new type of valve is made almost entirely of ebonite. External parts such as the hand wheel, as well as internal parts, are made from



Acid resistant inside and out

this non-corroding material. The valve can therefore be used in acid-laden atmospheres in laboratories, etc., as well as in pipework systems which carry corrosive substances.

Both flanged and screwed types are available and the bonnets can be operated by lever, chain or pressure if required. Screwed bodies are made in two types—hexagon-ended or block. The different types are available in various sizes ranging from $\frac{1}{4}$ in. up to 2 in.

Enquiry Ref. No. F.1/3.

MATERIALS HANDLING

Powerful Stallion

LOADS up to a ton can be carried on the Stallion hand pallet truck, yet the truck itself weighs only 1 cwt. The guiding handle also acts as the operating

Business EQUIPMENT SURVEY

control and a single long stroke with it raises the truck and automatically locks it in position. Another stroke releases the hydraulic mechanism and the load is automatically lowered against the controlled oil pressure. Speed of lowering is self-adjusting according to the load and there is a fast release for use when the truck is not loaded.

Trucks with various sizes of lifting frames up to 48in. by 24in. can be supplied as standard, but special sizes and lifting capacities of over a ton can also be provided.

Lift can be either from 6 to 8in. or from 7 to 9in. Metal or rubber-tyred wheels can be fitted.



Operated by the handle only

The front wheels will make a full turn of 360 deg. All the corners of the frame are rounded.

Since loading and unloading operations are carried out by alternative movements of the handle, foot and hand levers are eliminated.

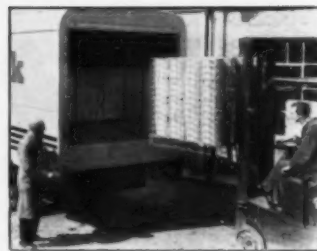
Enquiry Ref. No. F.1/4.

Mechanical Van Loading

INVENTION that enables full advantage to be taken of fork-lift trucks, mobile cranes, etc., in the loading and unloading of vehicles is a moving steel-slatted floor. Palletized and other unit loads are placed on the floor at the back of the vehicle and the floor (which can be hand-operated by a winch or power-driven from the engine) carries them forward towards the cab, eliminating the need for manhandling.

The slats making up the floor are supported on chains which are so arranged that very little effort is needed to operate the winch. The galvanized, pressed steel slats are hinged together in such a way that dust and road splash are safely excluded.

Floors can be made to fit any vehicle or trailer chassis up to



Movable van floor can be hand or engine-driven

7ft. in width. Floor and under-frame is of standard design and can be supplied as a unit or complete with body superstructure.

Enquiry Ref. No. F.1/5.

INSTRUMENTS

Standard Meter Range

FIRST of a new range of flow meters to be known as the Commander class is the KU model. The case, recording, integrating, indicating and automatic control mechanisms of the new range will all be standardized, thus reducing the number of



HOW ARE YOUR BUSINESS NERVES TO-DAY?



You want important papers . . . vital information . . . a sample from laboratory or stores. How long does it take the nerve system of your business to react? How quickly do your requirements reach your desk and how much does it cost to get them there? Remember, your business organisation is just as strong as the link between its various sections. On the smooth flow of paperwork and materials its prosperity and progress depend. Lamson Carrier Tubes and Conveying systems provide the vital line of communications which enable your whole organisation to function at peak efficiency all the time. Why not consult Lamson (Dept. D) now?

LAMSON CARRIER TUBES AND CONVEYORS

LAMSON ENGINEERING CO., LTD.

HYTHE ROAD, LONDON, N.W.10.

Tel: LADbroke 2424



"YOU'LL JUST
CATCH A GLIMPSE
OF OUR NEW
OFFICES.
ALL THE **CUPBOARDS**
ARE **STEEL** -
BY
Sankey-Sheldon
OF COURSE"



in dealing with Sankey-Sheldon you are buying direct from the Manufacturers.



SANKEY-SHELDON LIMITED, 46, Cannon Street, London, E.C.4

JANUARY, 1954



SYNCHRONOME

IMPULSE TIME SYSTEM

will solve these inseparable problems for you

Any time-controlled installation supplied on purchase outright or rental terms.

THE SYNCHRONOME CO. LTD.

ABBEE ELECTRIC CLOCK WORKS
MOUNT PLEASANT, ALPERTON, MDX.

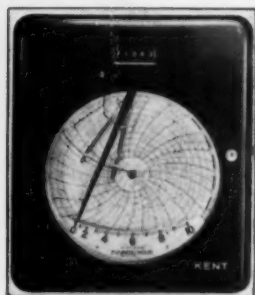
Tel.: WEMbley 3643

AGENTS IN THE BRITISH ISLES

SCOTLAND: Messrs. Ellis & McDougall, 101 West Regent Street, Glasgow, C.2. Telephone: Glasgow Douglas 6566.

NORTHERN IRELAND: Messrs. F. C. Duncan & Co., 20 Church Street, Belfast. Telephone Belfast 29086.

EIRE: Messrs. Haslam, Roddy & Co., 11 Crow Street, Dublin. Telephone: Dublin 73427.



Two pens and a pointer

spares needed and also ensuring that all the instruments on a panel are uniform in appearance.

The KU meter can record, indicate, integrate and automatically control the flow of oil, water, gas, steam and most industrial liquids. One or two pens and a pointer which moves over an 8in. long scale can be incorporated. Over-range protection is provided for the pens in both directions of movement.

When the meter door is opened, the pens and pointer are automatically lifted clear of the paper, thus making chart chang-

ing an easy matter. The layout and printing of the charts has been arranged so that all relevant figuring is the right way up when the chart is viewed.

The charts may be for decimal or direct reading and for daily or weekly rotation, using a mechanical or electrical clock. Push or pull action of the hub locates or releases the charts very quickly and there are no loose parts.

Case and door of the meter are aluminium die-castings and

the frame embodies a fitting for wall or post mounting as an alternative to fitting to a panel. Enquiry Ref. No. F.1/6.

MAINTENANCE

Cleans Anywhere

IMPROVEMENTS have been made in the mechanical Capitol floor drier and squeegee. These include a 24in. nozzle and a combined scrubbing and drying hand attachment which

Using the hand attachment for scrubbing under a low machine



He's throwing away your money!

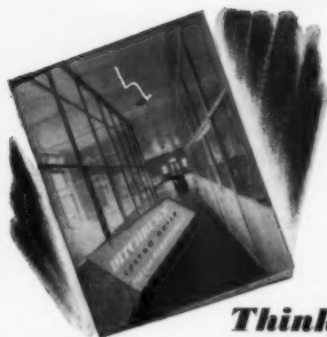
Jobs which cost too much time eat into profits. Why not check time costs against the same job taped? Taping saves time in packaging, sealing, masking, protecting, identifying, routeing. Taping makes a better job—better for the customer, more profitable for you!

IT PAYS TO TAPE WITH . .

Gosheron TAPES

There's a Gosheron tape for doing every job better. Tell us your problem—no matter what it is, and let us see where taping can help to solve it.

JOHN GOSHERON & CO LTD GAYFORD ROAD LONDON W12
Telephone: SHepherds Bush 3326/8 6271/4 (7 lines)



Thinking of PARTITIONS?

There is so much about Ditchburn Custom Built Metal Partitions that is new and different and better that it is just plain common sense to consider them before deciding on what type of partitioning to have.

Write for Catalogue No. 44

DITCHBURN
EQUIPMENT (SALES) LTD.
17 MOORFIELDS, LIVERPOOL 2
and
TERMINAL HOUSE,
GROSVENOR GARDENS, S.W.1

Your 'phone speaks aloud with TELEVOX!

£9 : 9 : 0 and its on Your Desk



WITH OR
WITHOUT
INTERCOM

- ★ **BOTH HANDS FREE** . . . enabling you to handle papers, make notes, etc.
- ★ **LISTEN WITH BOTH EARS** . . . this becomes very much appreciated when using a telephone all day.
- ★ **HOLDING ON IS NO LONGER NECESSARY** . . . You and your staff can carry on work during delays.
- ★ **FOR HIRE OR SALE**
- ★ **ONESWITCH CONTROLS** . . . outside and internal telephone calls. (Two Sets in One)
- ★ **TELEVOX MAINS OPERATED** . . . No battery troubles.

Please send full details of TELEVOX to

Name

Address 'B'1

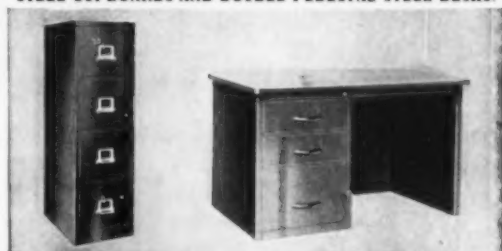
5, BOURNE STREET, SLOANE SQUARE, S.W.1
TELEPHONE: SLOANE 9884 (5 Lines)

JANUARY, 1954

Harvey



STEEL CUPBOARDS AND DOUBLE PEDESTAL STEEL DESKS.



STEEL FILING CABINETS AND STEEL TYPISTS TABLES.



STEEL CUPBOARDS WITH SLIDING DOORS.



STEEL CUPBOARDS WITH SHELVES OR PIGEON HOLES.

All Harvey Steel Office Furniture and Equipment is of modern design, sound construction, and of the highest quality. Finished in Olive Green stoved enamel it is perpetually durable, fire-resisting, and proof against damp and vermin. Prices are competitive. Send for Catalogue No. BU800

Harvey

G.A. Harvey & Co. (London) Ltd
Woolwich Rd. London, S.E.7

THERE'S DANGER IN SUDDEN DARKNESS

**POWER
BREAKDOWN
CAUSES CHAOS IN SAWMILL
OPERATORS INJURED IN DARKNESS**

**LIGHTS FAIL IN LARGE
DEPARTMENT STORE
CUSTOMERS GROPING
IN DARKNESS**

**FLOODS PENETRATE
POWER HOUSE
MANY WORKERS
STRANDED AS
DARKNESS DESCENDS**

**A POSSIBLE DANGER!
PEOPLE CAUGHT ON
MOVING ESCALATOR
WHEN LIGHTS FAIL**

The above were not actual incidents but these things do happen, so be prepared.



G.E.C. EMERGENCY LIGHTING SET

AUTOMATICALLY SWITCHES ON WHEN MAINS SUPPLY FAILS

One or more of these self-contained units will eliminate the risk of damage, injury, or theft arising from sudden power failure. Completely automatic, they provide adequate light for 1½ to 5½ hours according to wattage of lamps used.

Each unit lights one or two lamps, and the battery is always kept fully charged from the mains.

THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON, W.C.2

110

Business EQUIPMENT SURVEY

enables the operator to reach under low machines, benches, tables, etc. The machine is electrically powered and can now be pushed or pulled. The picture shows the combined scrubbing and drying hand attachment at work under a lathe.

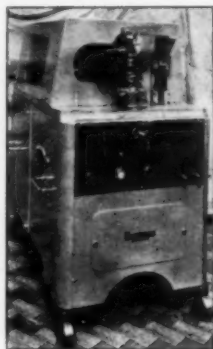
The manufacturers have also produced a cable winder which automatically takes up free cable, so preventing it from dragging on the floor. This winder can be used with the Capitol and other machines in the range.

Enquiry Ref. No. F.1/7.

PACKAGING

Dry Labeller

FOIL or paper labels can be permanently fixed to glass and metal containers and other



No daily filling or cleaning

surfaces by a dry-labelling machine known as the Autorex. Labels are printed in the usual way and on ordinary paper which is, however, pre-coated with a thermoplastic adhesive. The paper can be bought ready-coated and it is quite clean and dry to handle.

Single and twin-head models of the labelling machine are available, with capacities of 30 and 60 per minute respectively. The application of heat fixes the labels permanently and once they have been applied they will not come off because of heat or humidity. The machine is perfectly clean in operation. As there is no gum to be replenished and the machines do not need daily cleaning, operation is greatly simplified.

Accuracy of registration is said to be of the order of plus or minus 0.01in. Changing from

ADVERTISING BUSINESS

Business EQUIPMENT SURVEY

one container size and shape to another takes very little time and almost any type of panel and half-round labelling can be tackled efficiently. Anti-pilfer seals can also be fitted to the rims of bottles, eliminating the need for cork "shives."

The machine can be linked with ease to conveyor systems. This new labelling method (the *Autorex* is the first British machine of its type) should help to save time, effort and costs in many industries.

Enquiry Ref. No. F.1/8.

HEATING

Waste Oil Heater

ABLE to run from waste or ordinary fuel oil, the *Kamel* oil firing unit is designed for central heating boilers of between 100,000 and 350,000 B.Th.U.s capacity. No alterations to existing boiler installations are necessary and switching from oil to coke and back again can, if required, be done in a few minutes. The unit has a small reservoir holding about two gallons of oil.

Telescopic legs adjustable for any type of boiler are fitted. The unit is supplied complete and needs only the addition of a storage tank of about 40 gallons capacity. Oil is fed by gravity and consumption is approximately 1 to 1½ gallons per hour for a small-capacity boiler.

An electric immersion heater is incorporated in the unit; this operates at 230/250 volts a.c. The unit would be particularly useful in garages and main-



Converts boilers to burn waste oil without alterations

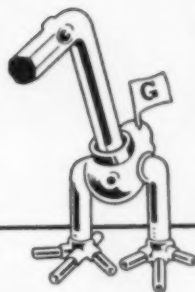
tenance departments, which normally have adequate supplies of waste oil. It is stated that any mechanic can install it.

Enquiry Ref. No. F.1/9.

JANUARY, 1954

STORAGE RACKING

*it's no longer
a problem
we know
the answers*



Storage Racking? Yes, and every other form of tubular structure yet imagined. Send your problem or write for details.



GASCOIGNES

KEE KLAMP

REGISTERED TRADE MARK

TUBULAR STRUCTURES

THE GEO. H. GASCOIGNE CO. LTD.
507 GASCOIGNE HOUSE, READING, BERKS

Telephones: Reading 4831-2-3; 5067-0-9; 2273-4-5



Yes, I can
hear you
perfectly . . .

How many of your work people and colleagues
can say that whenever they are on the phone?

Yet the installation of a **BURGESS ACOUSTI-BOOTH**—which is simple and inexpensive—ensures perfect audibility in the midst of the loudest and most persistent noise. There are wall-booths (illustrated) for factories, workshops, foundries, etc., and neat desk models for offices. Bulletin BP131B tells you all about them—free on request.

BURGESS acousti-booth

for quiet amid clatter

THE BURGESS PRODUCTS CO., LTD., HINCKLEY, LEICS.

Business EQUIPMENT SURVEY

WELFARE EQUIPMENT

Electronic Hand Drier

PLACING the hands in the drying chamber of the Broughton hand drier immediately produces a stream of comfortably warm air, which stops automatically when the hands are withdrawn. No hand- or foot-operated switch is needed.

This convenient arrangement is achieved by an electronic capacity switch which controls the heating element.

Easily attached to the wall by two screws, the unit is housed in a stove-enamelled cabinet measuring 14½ in. wide by 24½ in. high by 9½ in. deep. The design of the semi-spherical drying chamber, which is 10 in. in diameter, ensures that the most efficient use



is made of the heated air before it escapes into the atmosphere; hands are thus dried in the shortest possible time.

The electronic switch gear is mounted in a separate compartment above the drying chamber.

Total consumption is 1.85-kW. Standby consumption is no more than 50w.

Mounted as a unit, all the components are accessible when the back of the case is removed.

Enquiry Ref. No. W.1/1.

Safe and Clear

THE one-piece lens of the Saf-I-Spec safety spectacle is made of Optilite, a specially compounded non-inflammable plastic said to be tougher than glass and most other plastics. Since Optilite is suitable for precision moulding on optically-ground dies, the lens—easily replaced without special tools—gives clear undistorted vision.

THE LIABILITY IS YOURS

Slippery floors are dangerous and unnecessary. All who hold positions of responsibility whether in Offices, Municipal Buildings, Hospitals, Hotels, etc. should insist that a non-slip polish is used in the interests of safety and efficiency.

FURMOTO

NON-SLIP FLOOR CREAM

Supplied in ½, ¾ and 1 gallon tins
also in 5 gallon drums

★ Clear vision prevents accidents! "SPEC-TAKLEER" Lens Polish gives crystal clearness and maintains the efficiency of spectacles, goggles and face shields. It counteracts the effects of smoke, steam, fog and rain. Supplied in small handy bottles or in bulk. Write for further details and prices.

Sole Manufacturers:

FURMOTO CHEMICAL CO., LTD.
1/3 BRIXTON ROAD, LONDON, S.W.9.

FIRE MEETS ITS WATERLOO

in the Waterloo (Water/CO₂)
Extinguisher

THE MODERN EXTINGUISHER
FOR GENERAL FIRE RISKS

As installed in the British Museum.
Be prepared. THE CHEAPEST
'INSURANCE AGAINST FIRE IS
SOUND FIRE PROTECTION
EQUIPMENT.

Write for 24-page catalogue "Fire Fighting Plant and Equipment" or ask for one of our Surveyors to call and advise without obligation.

APPLIANCES FOR EVERY FIRE RISK

READ & CAMPBELL LTD.

(Est. 1878)

(Dept. 6), 75 VICTORIA STREET,
LONDON, S.W.1.

Tel: ABBey 2602 or 5762

Comfort is assured by a detachable *Polythene* nose-bridge, while patented "temples" may be attached or detached by turning one screw. The spectacle may be worn over ordinary glasses.

Four types are available: with clear or green lenses, and with or without sideshields.

The *Saf-I-Spec* is said to provide maximum protection against



all impact hazards where spectacle-type safety goggles are recommended. Already popular in America, it is now being made in Britain under licence.

Enquiry Ref. No. W.1/2.

Visible Trap

FOR industrial use, a new sink trap made of *Pyrex* glass has distinct advantages. Unaffected by all waste liquids—even acid—it enables stoppages to be detected and cleared far more easily than with the usual type of metal trap.

Its accessibility for cleaning is due to the fact that the stopper is held in position by a simple attachment similar to the clip used on some types of soft drink bottles. There are no rough edges to collect dirt or scale.

Available in three sizes, the new trap fits all sinks and hand-basins. It can be used in conjunction with *Pyrex* glass pipes to form a completely visible waste disposal system.

Enquiry Ref. No. W.1/3.

CANTEEN EQUIPMENT

Inexpensive Peeler

FOR canteens which are too small to justify the expense of a power-driven potato peeler, the *Merry Go* hand-turned model is clearly an attractive proposition. The makers claim that it washes and peels 3lb. of potatoes (or other vegetables, of course) in one minute.

The machine operates as it stands in the sink (rubber suction feet prevent skidding) with

JANUARY, 1954

Keen interest in improved

Osram

TUBES

BETTER EFFICIENCY

Halophosphate powders have been developed which give more light. The average efficiency through life of the Osram 5 ft. Daylight and Warm White tubes is now up by 12½%.

GREATER RELIABILITY

New methods of automatically coating the cathodes result in even more uniform performance which makes for greater reliability.

IMPROVED STAMINA

Automatic pumping and carefully controlled ageing help to ensure long, efficient life which means more light for a given consumption of electricity.

Osram tubes for STAMINA

A **GEC** Product. The General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2

3 MACHINES
IN ONE ANALYSES
ADDS & LISTS

REGNA

The CASH REGISTER
to RECKON WITH
from £90 H.R. TERMS

Analysing,
Adding and
Listing up to
£999 19s. 11½d.
Guaranteed
Service



Gives instantaneous
finger-touch recording of every cash transaction

May we demonstrate?

1. Individual sales

2. Paid out

Agents everywhere

3. Credit Sales

Deliveries ex stock

4. Accounts received

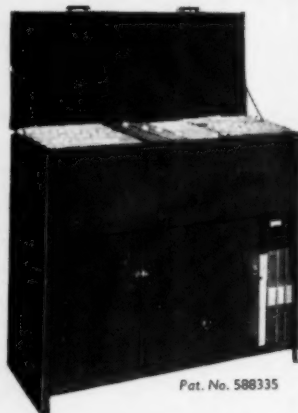
5. Daily turnover

THE REGNA CASH REGISTER CO.

Proprietors: The Joel Safe Co. (London) Limited
Telephone Trafalgar 3718

7, York Place, Adelphi, London. W.C.2.

THE ADMINISTRATOR



Pat. No. 588335

OPEN the lid and the top section reveals all your suspension files—Foolscap or Quarto, or both. Cupboard section is divided by a shelf giving two openings 4" and 14" high. Additional shelves can be supplied. Metal sliding doors for dust protection. Top section is secured by lock. Finished in stove enamel.

Write for literature to Dept. B.1.

RANDALRAK LTD.,

106, VICTORIA ST., LONDON, S.W.1
VICtoria 4238/3485

Business EQUIPMENT SURVEY

the rubber hose attached to the cold tap. Peel and dirt are collected as a fine pulp in an easily detached perforated waste trap.

The peeling action is similar to that of more expensive machines, the potatoes being turned over and over by a revolving abrasive plate which rubs them against



the abrasive wall of the container.

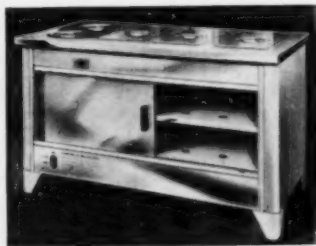
Sturdily constructed of die-cast aluminium and other non-rusting materials, the Merry Go is said to be self-cleaning.

Enquiry Ref. No. C.1/1.

Dry Heat

THE introduction of a new dry heat system enables food to be stored at serving temperature for almost indefinite periods in a well-designed gas-heated hot closet incorporating a service top. Neither water wells nor steam pads are needed.

Consisting of 7in. and 10in. pots and oblong pans (all with lids), the service equipment is flush with the stainless top. A



locking device holds the containers in place, but allows them to be removed for cleaning.

The sliding doors are mounted on bearings, and the unit's feet are adjustable.

Standard models are finished in cream enamel, but the de luxe version is constructed entirely of stainless metal. These closets are also available with plain tops, and all types can be included in complete counter runs suitable for canteen self-service.

Enquiry Ref. No. C.1/2.

"ACCURATYPE" THE TYPE FOR MULTIGRAPH MACHINES . . .

An entirely new and proven product which is specially hardened to give that longer life and cleaner printing that all Multigraph users desire . . .

The most economical type on the market . . . together with really prompt delivery.

Typical prices:

6pt. to 12pt. per font. Caps & l.c. £2 0s. 10½d. (Inc. P.T.)

Typewriter Pica per 1000 characters 13s. 9d. (Inc. P.T.)

Sole manufacturers and distributors:—

H. Young & Co. (Printers) Ltd.
Hillside Works, Catteshall Lane,
Godalming, Surrey.

IT'S WONDERFUL WHAT A RUBBER BAND WILL DO



Almost every manufacture has one process or more in which rubber bands—of a suitable size and gauge—can speed up production and cut costs. We will gladly send an expert to show you where and how rubber bands could save you time and money. Simply 'phone or write to us:—

COOMBS of WIMBLEDON

Sole makers of 'STANDARD BRAND' Rubber Bands
(Samples on request. Please mention this publication)

H. A. COOMBS LTD.

Standard Works, Richmond Road,
Wimbledon, S.W.20.

'Phone: WIMbledon 6555.

'Grams: Absentment, Wimble, London.

CLASSIFIED ADVERTISEMENTS

RATE—5/- a line (average 45 letters per line). Minimum 3 lines costing 15/-; each additional line or part of a line 5/-. Box No. counts as one line and is to be paid for; replies are forwarded free of charge, 2½% discount for 6 insertions, 5% for 12. Payment with order for single insertion.

APPOINTMENTS VACANT

SALES MANAGER required with experience in advanced sales techniques in large manufacturing or wholesale establishments. Factory and advertising experience an advantage. Age not over 40. Salary rising from £1,400 to £2,000 p.a. with prospects for further advancement. Full details of education, training, previous appointments and salaries, in confidence, to Box No. 1218 c/o BUSINESS, 180 Fleet Street, E.C.4.

FILING EQUIPMENT

IMPROVED LETTER FILES. Ask for list Gazebo, 57 Packington Road, Acton, London, W.3. ACORn 4731.

FOR SALE

FULL STEAM IN FIVE MINUTES with B. & A. Electrode Boilers. Used by British industries for 20 years. No boilerhouse, no flue, no attendant needed. The most compact and convenient steam raisers available, can go beside machines using the steam. Write for leaflet 107 Bastian & Allen, Ltd., Ferndale Terrace, Harrow. **Addressograph Automatic Suction Feed Attachment** for class 1950 Addressing Machine for sale. Little used, cost £426, reasonable offer accepted, or would sell the above complete with actual addressing machine. Box 1230 c/o BUSINESS, 180 Fleet Street, E.C.4.

Bransons Ltd., Leicester, have for disposal "Fordigraph" Spirit Duplicator; Roneo Duplicator; "Addicaco" Calculating Machine; Todd Cheque Writer; "Arista" Book Units; Burroughs Ledger Posting machine on stand, electric. Enquiries invited for all kinds of special equipment.

Burroughs Accounting Machines one bought new August 1952 and one Class 22—recently reconditioned. Immediate delivery. Box No. 1223 c/o BUSINESS, 180 Fleet Street, E.C.4.

Burroughs Electric Calculating Machine for sale. Absolutely perfect condition. Only reason for selling is change in system. Offers to Box No. 1226 c/o BUSINESS, 180 Fleet Street, E.C.4.

I Dapag Imprima Model D "2" C Printing Machine with Slugs and Type purchased Nov., 1951. Little used. Offers considered. Box No. 1225 c/o BUSINESS, 180 Fleet Street, E.C.4.

Dictaphone "Ten-minute" phone conversation Recorder for sale. 115/260 volts, A.C. ready for G.P.O. line. Excel. cond. Ideal for long exacting conversations. F. J. Edwards Ltd., 359 Euston Road, London, N.W.1. EUSTON 4681.

CALCULATING SERVICES LTD

MACHINE OPERATING EXPERTS

We undertake all kinds of adding, calculating and statistical figure work including STOCK SHEETS, ESTIMATES, etc. Many large and small firms throughout Great Britain use our service. If interested send for brochure C.S.6.

LONDON OFFICE:

130 Crawford St., at Baker St., W.1
Tel: Wel. 4328. Miss Harper

BIRMINGHAM OFFICES:

1 Albert Street, 4. Tel: Cen. 6541
Miss Lefroy. (Established 21 years)

For Sale—cont.

Hydra Paper Shredding or Document Destroying Machine for sale. Motor driven 110/220 volts, 1-ph. Max. width taken 8in. F. J. Edwards Ltd., 359 Euston Road, N.W.1. EUSTON 4681.

National Accounting Machine Model 30611 (120). Year 1947, in excellent condition. Box No. 1228 c/o BUSINESS, 180 Fleet Street, E.C.4.

Recordon Dictating Machine, full equipment, little used. £36—Phone Bradford, Yorks 24191.

Remington Rand Cabinet, with 9 Drawer 13" x 9" Visible Kardex Trays. Complete with pockets, etc. Open to reasonable offer. Write Box No. 1224 c/o BUSINESS, 180 Fleet Street, E.C.4.

Dictaphones, Electronic—I Dictating and I Transcribing machine for sale, also hand microphone—1951 Models. Hardly used. In perfect condition. Price £130 the two. Martin-Baker Aircraft Co., Ltd., Higher Denham, Nr. Uxbridge, Middlesex. Tel: Denham 2214.

For Sale ORIGINAL ODHNER calculating machine, crank operated. In perfect condition. Bargain £25. Box No. 1229 c/o BUSINESS, 180 Fleet Street, E.C.4.

Lamson Paragon Cash Register and Invoice Machine, suitable for Shop or Sales Office. Excel. cond. Orig. cost £60. 15.0d. Offers to Woodman's, Pinner, Middlesex.

MISCELLANEOUS

British Society of Commerce, Ltd., (by Guarantee) designation F.B.S.C., a professional organization for all engaged in commerce. Write Secretary, 74 King Street, Wigan, 11.

DICTATING MACHINE CONSULTANTS established thirty years prepared to advise you on the type of System best suited to your requirements, and to supply most good makes of electronic and acoustic machines. Consult the dictating machine specialists: Dixon's, 229 Oxford Road, Manchester. Telephone ARDwick 4269.

WANTED

Powers Samas equipment required; including Tabulator, Sorter, Automatic Verifier and Automatic Key Punches. Box No. 1222 c/o BUSINESS, 180 Fleet Street, E.C.4.

Visible Card Record Cabinets, 5" x 3" size, 75,000 capacity. Kardex or similar pocket system. Offers to Bransons, Ltd., Leicester.

Recordon Machine—type 503A required. State particulars and price. W. T. Flather Ltd. Standard Steel Works, Sheffield, 9.

THERE'S NO BUSINESS LIKE SHOW BUSINESS

May we suggest that for your next works anniversary or staff dinner-dance you include a novel, comedy cabaret act.

THE VOICEMASTERS

2 Manor Mansions, Belsize Park Gardens
London, N.W.3 Tel PRIMrose 3789

REMINGTON ACCOUNTING MACHINES

for prompt delivery. All equipment rebuilt and fully guaranteed for one year. Maintenance service available on expiry of guarantee. Free preparation of systems, training of operators and installation services.

H. H. DURHAM LTD.,
85, BLACKFRIARS RD., LONDON, S.E.1.
Tel.: WATERloo 6881-2.

THE WORLD'S GREATEST BOOKSHOP

FOYLES
FOR BOOKS

All new Books available on day of publication. Secondhand and rare Books on every subject. Large stock of Business Books. 119-125, CHANCING CROSS ROAD, W.C.2. Gerrard 5668. Open 9-6 (Inc. Sat.).

MASONITE PRESWOOD

is so reliable . . .

Masonite Preswood has been used in industry for more than 20 years, and has proved its quality. Panelling, cupboards and fitments, signs and displays.

Samples and details from:

Masonite Ltd.
Bevis Marks House,
London, E.C.3.
AVENue 2846.

Registered Trade Mark



Adding Machine Service Company

Accredited dealers for

BURROUGHS Portable Adding machines, hand or electric.
VICTOR
OLIVETTI High-grade S/H Accounting Equipment available.
ADDO

Adding Machine Service Company
1 Northington St., Gray's Inn Road,
LONDON, W.C.1. Tel: CHA 8764

FREE

Bargain List of Surplus Electronic Equipment, Dictaphones, Ediphones, Tape Recorders, etc.

HOLDINGS of BLACKBURN Ltd
39-41, Mincing Lane, Blackburn

ADDING—CALCULATING—ACCOUNTING MACHINES SALE OR HIRE

M. E. GREYER,
Gwydir Chambers, 104, High Holborn,
London, W.C.1. Tel.: HOL 6208.

TARPAULINS FOR HIRE

S. LOMAS & Co.
(TARPAULINS) LTD.
WARD ROAD WORKS,
LONDON, E-15
MARYland 3616

Abbit Bros. (Southall)	77	Freeder Bros. Paper Mills ...	88	Ozalid Co., Ltd.	103
Abix (Metal Industries), Ltd.	30	Furmoto Chemical Co., Ltd.	112		
Adding Machine Service Co.	115				
Addressall Machine Co.	20				
Anson, Geo., & Co., Ltd.	73	G.B. Equipments, Ltd.		Peter's Automatic Machines, Ltd.	91
Art Metal Construction Company	33	Prospect iv		Petty & Sons, Ltd.	116
Autoticket, Ltd.	96	Gascolne Co., Ltd., The	111	Pitman, Sir Isaac, & Sons, Ltd.	116
Avary, J., & Co.	26	General Electric Co., Ltd.	113	Poultney, S. & B., Ltd.	103
		Gent & Co., Ltd.	12		
		Gesstner, Ltd.	11		
Bartlett, G. F. E., Ltd.	92	Gledhill Brook Time Recorders, Ltd.	30	Randalrak, Ltd.	114
Bawn, W. B., & Co., Ltd.	28	Gosheron, John, & Co., Ltd.	108	Read & Campbell, Ltd.	112
Blick Time Recorders, Ltd.	32	Gray, M. E.	115	Rega Cash Register Co.	114
Block & Anderson, Ltd.	29			Reliance Telephone Co., Ltd.	116
British Electrical Development Assn.	Prospect xii	Harcraft, Ltd.	35	Remington-Rand, Ltd.	116
British Olivetti, Ltd.	23	Harvey, G. A., (London), Ltd.	109	Renrew Foundries, Ltd.	Cover ii
British Paints, Ltd.	7	Haycraft, M., & L., Ltd.		Roneo, Ltd.	17
British Vacuum Cleaner & Eng. Co., Ltd.	22	Cover iv			
Brown, F. C.	21	Henlys, Ltd.	99	Sankey-Sheldon, Ltd.	107
Bulmer's (Calculators), Ltd.	31	Holdings Fidelity Films	115	School of Accountancy, Ltd.	21
Burgess Products Co., Ltd.	112	Horton Mfg. Co., Ltd.	88	Seldex Dept. of Constructors, Ltd.	10
Burroughs Adding Machine Ltd.	5, 36	Hunt & Colleys, Ltd.	14	Shannon, Ltd.	101
				Shaw Publishing Co., Ltd.	7
Calculating Services (B'ham), Ltd.	115	I.B.M. United Kingdom, Ltd.	85	Siebert, James Equipment Co., Ltd.	20
Carson Bros. Productions	87	Imperial Typewriter Co., Ltd.	19	Smith, W. H., & Son, Ltd.	91
Carter-Davis, Ltd.	74	Jenkins Fidgeon, Ltd.	22	Spiral Tube & Components, Ltd.	91
Cave, C. W., & Co., Ltd.	1	Johnson, S. C., & Son, Ltd.	13	Sterling Typewriter Co., Ltd.	81
Cellicotton Products, Ltd.	91	Jones, Percy, (Twinkl), Ltd.	100	Sumlock, Ltd.	118
Columbia Ribbon & Carbon Mfg. Co., Ltd.	8	Joyce, Michael	115	Synchronome Co., Ltd.	103
Colt Ventilation, Ltd.	3	Kalamazoo, Ltd.	4		
Coombs, H. A., Ltd.	114			Telegraph Condenser Co., Ltd.	10
Copeland-Chatterton Co., Ltd.	25	Lambart & Smyth, Ltd.	88	Telephone Rentals, Ltd.	8
Counting Instruments, Ltd.	98	Lamson Engineering Co., Ltd.	106	Televox (London), Ltd.	109
Cushman & Denison, Ltd.	34	Leabank Office Equipment, Ltd.	18	The Trevor-Johnstone Co., Ltd.	7
		Lotas, S., & Co. (Tarpaulin), Ltd.	115		
Dare-Ingis Products, Ltd.	6	Magneta Time Co., Ltd.	115		
Dart Cash Carrier Co., Ltd.	34	Masonite Ltd.	28	Underwood Business Machines, Ltd.	4
Ditchburn Equipment (Sales) Ltd.	109	Mechair, Ltd.	86	Universal Postal Frankers, Ltd.	2
Dicograph Telephones, Ltd.	27	Midland Bank, Ltd.	24		
Durham, H. H., Ltd.	115	Milner's Safe Co., Ltd.	12		
		Moore, H. A., & Co., Ltd.	85		
		Moore's Modern Methods, Ltd.	99		
		Moss, Wm., & Sons, Ltd.	104		
E.M.I., Ltd.	38			Welconstruct Co., Ltd., The West, A., & Partners	10
Ellams Duplicator Co., Ltd.	84			Westwood, Joseph, & Co., Ltd.	3
English Numbering Machines, Exvertaut, Ltd.	24	National Cash Register Co., Ltd.	42	Wheeler, H., & Co., Ltd.	9
Export Packing Service, Ltd.	78	Noble Lowndes Pension Service, The	Prospect viii	Wingrove & Rogers, Ltd.	1
Fonadel (Branson), Ltd.	31	Odoni, Alfred A., & Co., Ltd.	95	Young, H., & Co. (Printers), Ltd.	
Foyle, W. & G., Ltd.	115	Office Machinery, Ltd.	102		

OFFICE PRACTICE

By W. Campbell. Gives a faithful reflection of the work and methods of a modern business office, and gives the rudiments of book-keeping as applied to the transactions between customer and supplier. 10/-. "A comprehensive and detailed textbook covering the work and methods of the clerical side of a modern business"—B.A.C.I.E. JOURNAL.

THE LEGAL ASPECTS OF BUSINESS

By H. R. Light, B.Sc., F.C.I.S. Third Edition. 15/- net. "It is a meritorious book; the author's style is fluent . . . a clear and accurate presentation of legal topics that are of particular interest to the business man."—LAW TIMES.

STATISTICS FOR PROFESSIONAL STUDENTS

By R. A. Holmes, B.Com., F.C.I.S., etc. Provides an excellent introduction to the study of statistics and is specially designed to appeal to those who are preparing for an examination in which a fundamental knowledge of this subject is required. Third Edition. 15/- net.

BUDGETARY CONTROL AND STANDARD COSTS

By J. A. Scott, C.A., A.C.W.A. Third Edition
18/- net. "We congratulate the author on the
style, layout, and presentation of his data, which
we regard as extremely lucid and painstaking."
COST ACCOUNTANT.

BUSINESS FINANCE

By F. W. Paish. 12/6 net. "This is a useful book, carefully written study of the financial problems which may arise during the life-history of an expanding business unit. It is highly recommended to the student, the general reader, and the politician—the last not least."

HIGHER EDUCATION JOURNAL

INTERNAL AUDITING

By A. C. Smith, C.A. One of the very few available on the subject, this book is a practical introduction to the audit of industrial management, and to the procedure for verifying systems of administration control. Clearly written and fully indexed. 21/- net.

Sir Isaac Pitman & Sons Ltd.
PARKER STREET, KINGSWAY, LONDON, WC2



You Pay Your Staff for Working-Not Walking!

Walking is a dead loss of man hours in business. Efficient intercommunication saves miles of walking. RELIANCE TELEPHONE SYSTEMS put everyone at everybody's elbow . . . no walking; no waiting. A flick of a switch, nothing more, gives instant intercommunication. Take the first step towards lowering your staff costs and start saving everybody's time now

THE RELIANCE TELEPHONE COMPANY LTD. (A subsidiary of the General Electric Co. Ltd.)
43-47 PARKER STREET, KINGSWAY, LONDON, W.C.2 Telephone: CHANCERY 5361 (P.B.X.)
Branches throughout the United Kingdom. INTERNAL TELEPHONES - STAFF LOCATION MUSIC FOR INDUSTRY

GRAPHDEX



visual facts for management

Up to the minute Graphdex charting plots and presents visually every facet of the business scene. It gives management an over-all, easy to read picture of production, sales, stock, budget and personnel data; speeds and aids executive decisions. Graphdex panels fit neatly and unobtrusively into any available wall space; can be added to, altered or removed in a moment. Coloured signals give endless signalling combinations, adapt readily to the most complex and specialised charting requirements. If you are looking for a visual presentation of management facts, send for details of Graphdex. It is made by Remington Rand; yet another of the range of machines, systems and equipment which provide an easier way to office efficiency.



Remington Rand

SYSTEMS · MACHINES · EQUIPMENT

Send for full details and free booklet to (Dept. GX14)

Remington Rand Ltd, Commonwealth House, 1-19 New Oxford St, W.C.1



The man who never would

He refused to believe that a dictating machine was any use to him. He never would find out how a good machine would save him endless time and trouble. Of course, he didn't realise that today there is the Agaphone available that has been designed specifically to meet every dictation need of the businessman.

If you are doubtful about the value of dictating machines, see the Agaphone and you will be astonished at the time it saves you, to say nothing of its quality, versatility and remarkable operating features.

Note the facts, have a demonstration and see for yourself what the Agaphone can do for you.

Write, call or telephone for a personal demonstration—it places you under no obligation.

FACTS

Up to an hour's dictation with the spools of wire held in a foolproof magazine. Can be used for conference recording. Time control enables dictation to be automatically located for playback. Signalling device warns the secretary of remarks, instructions, etc., which are not to be transcribed. Key controls are simple and positive. Small and compact. Handsome appearance. Operates on any voltage or can be used in a car.

M. & L. HAYCRAFT LTD.

ST. STEPHEN'S HOUSE, WESTMINSTER, LONDON, S.W.1.

Tel.: WHITEhall 9618 9.



*Find out about the Agaphone
the best in dictating machines*